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MTS-183

NOVEMBER 1971

# MARKETING & TRANSPORTATION Situation



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# MARKET FACTS

Item	Unit or base period	1970			1971		
		Year	:3rd qtr.	1st qtr.	2nd qtr.	:3rd qtr.	
Farm-Retail Price Spreads: 1/	:	:	:				
Retail cost .....	Dol.	1,225	1,233	1,217	1,244	1,260	
Farm value .....	Dol.	480	482	466	476	480	
Farm-retail spread .....	Dol.	745	751	751	768	780	
Farmer's share of retail cost .....	Pct.	39	39	38	38	38	
Retail Prices: 2/	:	:	:				
All goods and services (CPI) .....	1967 = 100	116.3	117.0	119.5	120.8	122.1	
All food .....	1967 = 100	115.0	115.8	116.1	118.4	119.6	
Food at home .....	1967 = 100	113.7	114.4	114.1	116.6	117.7	
Food away from home .....	1967 = 100	119.9	121.0	123.9	125.3	127.1	
Wholesale Prices: 2/	:	:	:				
Food 3/ .....	1967 = 100	113.2	114.0	113.9	115.9	115.8	
Cotton products .....	1967 = 100	105.6	105.5	107.5	109.8	112.2	
Woolen products .....	1967 = 100	99.5	99.0	95.4	93.8	92.6	
Agricultural Prices:	:	:	:				
Prices received by farmers .....	1967 = 100	110	110	110	112	112	
Prices paid by farmers, interest, taxes and wage rates .....	1967 = 100	114	114	118	120	120	
Prices of Marketing Inputs:	:	:	:				
Containers and packaging materials ....	1967 = 100	108	108	111	113	114	
Fuel, power, and light .....	1967 = 100	108	109	118	120	121	
Services 4/ .....	1967 = 100	120	122	125	128	132	
Hourly Earnings:	:	:	:				
Food marketing employees 5/ .....	Dol.	3.03	3.04	3.19	3.24	---	
Employees, private nonagricultural sector 2/ .....	Dol.	3.23	3.26	3.35	3.40	3.45	
Farmers' Marketings and Income:	:	:	:				
Physical volume of farm marketings ....	1967 = 100	104	104	97	84	---	
Cash receipts from farm marketings 6/ .....	Bil. dol.	49.2	48.4	49.7	50.6	52.3	
Farmers' realized net income 6/ .....	Bil. dol.	15.7	14.5	14.6	14.8	16.3	
Industrial Production: 1/	:	:	:				
Food manufacturers .....	1967 = 100	111.7	109.7	114.2	114.7	---	
Textile mill products .....	1967 = 100	106.3	106.0	104.6	109.0	---	
Apparel products .....	1967 = 100	97.8	97.7	95.3	98.6	---	
Tobacco products .....	1967 = 100	100.0	101.2	99.0	96.4	---	
Retail Sales: 8/	:	:	:				
Food stores .....	Mil. dol.	81,466	20,435	20,962	21,437	---	
Eating and drinking places .....	Mil. dol.	27,872	7,020	6,959	7,187	---	
Apparel stores .....	Mil. dol.	20,396	5,069	5,200	5,289	---	
Consumers' Per Capita Income and Expenditures: 2/	:	:	:				
Disposable personal income .....	Dol.	3,358	3,394	3,500	3,584	3,614	
Expenditures for goods and services ....	Dol.	3,007	3,027	3,125	3,192	3,242	
Expenditures for food .....	Dol.	557	557	568	579	582	
Expenditures for food as percentage of disposable income .....	Pct.	16.6	16.4	16.2	16.2	16.1	

1/ For a market basket of farm foods. 2/ Dept. of Labor. 3/ Processed foods, eggs, and fresh and dried fruits and vegetables. 4/ Includes such items as rent, property insurance and maintenance, and telephone. 5/ Average hourly earnings of production workers in food processing, and nonsupervisory workers in wholesale and retail food trades, calculated from Dept. of Labor data. 6/ Quarterly data seasonally adjusted at annual rates. 7/ Seasonally adjusted, Board of Governors of Federal Reserve System. 8/ Quarterly data seasonally adjusted, Dept. of Commerce. 9/ Seasonally adjusted annual rates, calculated from Dept. of Commerce data. Percentages have been calculated from total income and expenditure data.

# MARKETING AND TRANSPORTATION SITUATION

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November 4, 1971

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## SUMMARY

Returns to farmers for farm originated foods may change little in the fourth quarter from third quarter levels, but returns are expected to strengthen during the first half of 1972. Marketing spreads will probably widen but at a slower pace than in recent years depending on the impact of price and wage restraints imposed by Phase II of the new economic policy.

The retail cost of a market basket of farm-originated foods decreased almost 1 percent in September, the first monthly reduction this year. Eggs were down 7 percent and fresh fruits and vegetables were down 9 percent at retail. Prices of meat, dairy, and most other products changed relatively little from August levels. Ceilings placed on prices by the 90-day wage and price freeze helped hold down prices at retail. However, most of the September decline in retail cost was due to sharply lower farm prices. Prices of most market basket foods declined at the farm level, particularly eggs and fresh fruits and vegetables, in response to seasonally larger supplies.

Returns to farmers (farm value) for market basket foods declined 3.2 percent from August to September. Since only part of this decrease was reflected at retail, the marketing spread (difference between retail cost and farm value) increased  $\frac{1}{2}$  percent.

Despite the substantial decrease in September, third quarter retail prices for domestic farm foods averaged higher than in the second quarter. The market basket averaged \$1,260 (annual rate), up 1.3 percent from the second quarter, and 2.2 percent above a year earlier.

Gross returns to farmers for market basket foods averaged \$480 (annual rate) in the third quarter, up almost 1 percent from the second quarter. Returns for hogs and soybeans rose sharply. In contrast, returns for wheat and many fresh vegetables were down substantially. Gross returns averaged about  $\frac{1}{2}$  percent below the third quarter of last year, reflecting sharply lower returns for hogs, eggs, and some fresh vegetables. Farm values increased for most other products, especially poultry, fresh fruits, and soybeans.

Prices paid by farmers including interest, taxes, and wage rates in the third quarter averaged 5 percent higher than a year earlier.

The marketing spread—the difference between the retail cost and farm value of the market basket—averaged \$780 in the third quarter,  $\frac{1}{2}$  percent more than in the previous quarter. Widening marketing spreads accounted for almost three-fourths of the rise in the retail cost of

the market basket of foods. Third quarter marketing spreads averaged 3.8 percent above a year earlier.

Marketing costs, which have risen rapidly in recent years, continued to rise through midyear, putting pressure on marketing spreads. These costs include labor, transportation, packaging, utilities, rent, and related services. Average hourly earnings of food marketing employees were 7.3 percent higher in August than a year earlier. Prices of intermediate goods and services averaged 7 percent higher in the third quarter of this year compared with a year earlier. The combined index

of railroad freight rates for food products averaged 116 in 1970, up 11 point from 1969, boosting transportation costs. Despite rising costs, profit ratios of food manufacturing corporations and retail food chains averaged higher in 1971's second quarter than a year earlier.

Farmers received an average of 38 cents of the dollar consumers spent for farm foods in the third quarter. This was the same as in other quarters of this year, but 1 cent less than a year earlier.

## FARM-FOOD MARKET BASKET STATISTICS

### Retail Cost

Retail prices for a market basket<sup>1</sup> of farm originated foods decreased nearly 1 percent in September, reversing a series of month-to-month increases that had persisted since January (table 1). This decrease for September is the first measure of retail price behavior for farm foods since the wage-price freeze was initiated on August 15. Abundant supplies of farm foods and the moderating effect of the price freeze were responsible for the decrease.

The wage-price freeze is part of the new economic policy to curb and control inflation. It put a ceiling on prices, wages and rents for 90 days at levels no higher than those prevailing during the previous 30 days prior to August 15 or on May 25, 1970, whichever level was higher. Retail prices for most foods are regulated. For market basket foods, only eggs and fresh fruits and vegetables are exempt at retail. However, prices received by farmers for food commodities were allowed to fluctuate.

Prices of eggs and fresh fruits and vegetables declined 7 and 9 percent, respectively, in September accounting for practically all of the decreased in the retail cost of the market basket. Prices for pork also decreased slightly. Prices for most other items in the market basket rose slightly, but increases were relatively minor in the first post-freeze month compared with monthly increases earlier in the year. Additional time is needed to fully assess the impact of the freeze on market basket statistics.

<sup>1</sup> The market basket contains the average quantities of domestic, farm-originated food products purchased annually per household in 1960 and 1961 by wage-earners and clerical worker families and single workers living alone. Its retail cost is calculated from retail prices published by the Bureau of Labor Statistics. The retail cost of the market basket foods is less than the cost of all foods bought per household since it does not include the cost of meals in eating places, imported foods, seafoods or other foods not of farm origin. The farm value is the gross return to farmers for the farm products equivalent to foods in the market basket. The farm-retail spread—difference between the retail cost and farm value—is an estimated of the total gross margin received by marketing firms for assembling, processing, transporting, and distributing the products in the market basket.

On a quarterly basis, the retail cost of the market basket for farm originated foods averaged \$1,260 (annual rates) in the third quarter of this year—up \$16 or 1.3 percent from the previous quarter (table 2). Retail costs reached the highest levels for the year in July and August before decreasing in September. Higher prices for fresh fruit, poultry, beef, pork, and processed fruits and vegetables contributed to the third quarter rise in food prices, but prices for fresh vegetables were lower.

Compared with the third quarter last year, the retail cost of the market basket was up 2.2 percent. All product groups advanced except meat products and eggs. The retail cost of meat products decreased because prices for pork were about 10 percent lower than a year ago. The retail cost of market basket foods in the third quarter averaged 17 percent above the 1967 base period.

### Farm Value

The farm value for market basket foods decreased sharply from August to September. Returns to farmers for these foods decreased 3.2 percent. Every product group in the basket decreased except the miscellaneous group which was unchanged. Decreases were particularly sharp for eggs and fresh fruits and vegetables which were in seasonally large supply. Returns for other product groups decreased at or below the average rate for the total market basket.

Despite the sharp decrease in September, the total farm value for market basket foods in the third quarter averaged \$480 (annual rate)—up almost 1 percent or \$4 from the second quarter. Returns for hogs rose about 13 percent from the low levels of the second quarter. Oilseeds rose 14 percent. In contrast, prices for wheat, corn and many fresh vegetables were down substantially.

Farm value in the third quarter this year was down about ½ percent from a year earlier. Decreases for eggs, hogs, and a few other products more than offset significant increases for poultry, fresh fruits, and soybeans.

Farm value of market basket foods in the third quarter averaged 16 percent above 1967, but 5 percent below the record reached in the first quarter of 1970.

Table 1.--The market basket of farm foods: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, average 1947-49 and 1957-59, annual 1961-70, monthly 1970-71 1/

Year and month	Retail cost :	Farm value :	Farm-retail spread :	Farmer's share :
	Dollars	Dollars	Dollars	Percent
Average:				
1947-49 .....	890	441	449	50
1957-59 .....	983	388	595	39
:				
1961 .....	997	380	617	38
1962 .....	1,006	384	622	38
1963 .....	1,013	374	639	37
1964 .....	1,014	374	640	37
1965 .....	1,038	408	630	39
1966 .....	1,095	443	652	40
1967 .....	1,080	414	666	38
1968 .....	1,118	435	683	39
1969 .....	1,174	478	696	41
1970 <u>2/</u> .....	1,225	480	745	39
:				
<u>1970 3/</u>				
January .....	1,222	503	719	41
February .....	1,228	510	718	42
March .....	1,223	507	716	41
April .....	1,225	488	737	40
May .....	1,224	486	738	40
June .....	1,226	480	746	39
July .....	1,235	497	738	40
August .....	1,235	477	758	39
September .....	1,229	473	756	38
October .....	1,219	462	757	38
November .....	1,208	449	759	37
December .....	1,211	438	773	36
:				
<u>1971 2/ 3/</u>				
January .....	1,210	449	761	37
February .....	1,214	473	741	39
March .....	1,227	476	751	39
April .....	1,237	476	761	38
May .....	1,241	473	768	38
June .....	1,254	479	775	38
July .....	1,263	484	779	38
August .....	1,264	486	778	38
September .....	1,252	471	781	38
October .....				
November .....				
December .....				

1/ Retail cost of average quantities purchased annually per household in 1960-61 by urban wage-earner and clerical-worker families and single workers living alone, calculated from retail prices collected by the Bureau of Labor Statistics. Data for earlier years are published in Farm-Retail Spreads for Food Products 1947-64, ERS-226, April 1965; 2/ Preliminary. 3/ Annual rates.

Table 2.--The market basket of farm foods by product groups: Retail cost, farm value and farm-retail spread, July-September 1971, April-June 1971 and July-September 1970

Items	July-	April-	July-	Change: July-September 1971 from			
	September 1971	June 1971	September 1970	April-June 1971	July-September 1970		
	Dol.	Dol.	Dol.	Dol.	Pct.	Dol.	Pct.
Retail cost 1/							
Market basket .....	1,259.52	1,243.95	1,232.96	15.57	1.3	26.56	2.2
Meat products .....	373.91	366.96	378.75	6.95	1.9	-4.84	-1.3
Dairy products .....	226.19	224.27	218.92	1.92	.9	7.27	3.3
Poultry .....	51.33	49.91	49.12	1.42	2.8	2.21	4.5
Eggs .....	37.13	36.87	42.46	.26	.7	-5.33	-12.6
Bakery and cereal :							
products .....	192.49	191.95	185.34	.54	.3	7.15	3.9
Fresh fruits .....	60.60	54.43	55.65	6.17	11.3	4.95	8.9
Fresh vegetables ..	82.34	88.00	79.68	-5.66	-6.4	2.66	3.3
Processed fruits :							
and vegetables ...	133.87	131.12	127.26	2.75	2.1	6.61	5.2
Fats and oils .....	44.71	44.13	41.20	.58	1.3	3.51	8.5
Miscellaneous :							
products .....	56.95	56.31	54.58	.64	1.1	2.37	4.3
Farm value 2/							
Market basket .....	480.38	476.32	482.45	4.06	.9	-2.07	-.4
Meat products .....	199.07	192.98	205.25	6.09	3.2	-6.18	-3.0
Dairy products .....	106.48	106.90	104.54	-.42	-.4	1.94	1.9
Poultry .....	24.73	23.80	22.37	.93	3.9	2.36	10.5
Eggs .....	21.20	20.91	27.06	.29	1.4	-5.86	-21.7
Bakery and cereal :							
products .....	35.41	36.51	35.54	-1.10	-3.0	-.13	-.4
Fresh fruits .....	17.82	16.84	16.47	.98	5.8	1.35	8.2
Fresh vegetables ..	24.48	29.43	24.92	-4.95	-16.8	-.44	-1.8
Processed fruits :							
and vegetables ...	25.89	25.49	24.54	.40	1.6	1.35	5.5
Fats and oils ....	15.34	13.44	11.92	1.90	14.1	3.42	28.7
Miscellaneous :							
products .....	9.96	10.02	9.84	-.06	-.6	.12	1.2
Farm-retail spread							
Market basket .....	779.14	767.63	750.51	11.51	1.5	28.63	3.8
Meat products .....	174.84	173.98	173.50	.86	.5	1.34	.8
Dairy products ...	119.71	117.37	114.38	2.34	2.0	5.33	4.7
Poultry .....	26.60	26.11	26.75	.49	1.9	-.15	-.6
Eggs .....	15.93	15.96	15.40	-.03	-.2	.53	3.4
Bakery and cereal :							
products .....	157.08	155.44	149.80	1.64	1.1	7.28	4.9
Fresh fruits .....	42.78	37.59	39.18	5.19	13.8	3.60	9.2
Fresh vegetables ..	57.86	58.57	54.76	-.71	-1.2	3.10	5.7
Processed fruits :							
and vegetables ...	107.98	105.63	102.72	2.35	2.2	5.26	5.1
Fats and oils ....	29.37	30.69	29.28	-1.32	-4.3	.09	.3
Miscellaneous :							
products .....	46.99	46.29	44.74	.70	1.5	2.25	5.0

1/ Retail cost of average quantities purchased annually per household in 1960-61 by urban wage earner and clerical-worker families and single workers living alone, calculated from retail prices collected by the Bureau of Labor Statistics.

2/ Payment to farmer for equivalent quantities of farm products minus imputed value of byproducts obtained in processing.

## Farm-Retail Spread

The 90-day price freeze does not regulate marketing margins directly, but it may restrict the magnitude of changes in some circumstances. For example, if the retail price for a product is at the ceiling level and the price of the raw agricultural product increases, then the spread must decrease. However, in September, prices of most products declined at the farm level and margins widened. Only about two-thirds of the decrease in farm value for market basket foods was reflected in lower prices to consumers; the remaining third was absorbed in the marketing spread.

The farm-retail spread increased  $\frac{1}{2}$  percent from August to September. The largest increases in spreads were for eggs, 7 percent, and meat products, 4 percent. In contrast, spreads decreased sharply for fresh fruits and vegetables.

In the third quarter, about three-fourths of the increase in the retail cost of market basket foods resulted from higher marketing spreads. The spread between the retail cost and farm value of market basket foods averaged \$780 (annual rate), \$12 or 1.5 percent more than in the second quarter of this year. Spreads widened for all product groups except eggs, fresh vegetables, and fats and oils.

The farm-retail spread of the market basket was 3.8 percent higher than the third quarter last year. The increase was distributed among spreads for all products groups except poultry which decreased slightly. The increase in marketing spreads accounted for all of the year-to-year increase in the retail cost of market basket foods.

Thus far in 1971, marketing spreads have risen much less than for the comparable period of 1970. Last year, third quarter spreads averaged 7 percent above a year earlier. Widening marketing spreads this year undoubtedly reflect continued increases in wages and other costs of doing business. In the third quarter of 1971 the marketing spread for the market basket of farm foods was 17 percent higher than in 1967.

## Farmer's Share

Farmers received an average of 38 cents of the dollar consumers spent for domestic farm food in retail food stores in the third quarter of this year. This was the same as in the previous quarter but 1 cent less than a year earlier.

## Outlook

Farm value of foods may change little in the fourth quarter but tightening supplies of livestock products and fresh vegetables may strengthen returns to farmers for U.S. farm foods in the first half of 1972. Although marketing spreads are expected to continue to rise, the increase will probably be at a slower pace than in recent years. The rate of change will depend largely on the moderating effect of price and wage restraints to be imposed by Phase II of the new economic policy.

## Commodity Highlights

**Pork:** Prices for pork at all market levels rose in the third quarter of 1971, from the relatively low levels in the first half. However, prices were substantially lower than a year earlier. The composite retail price of pork cuts averaged 71.3 cents per pound in the third quarter—7.7 cents less than a year earlier (table 3). Returns to farmers for hogs (farm value) were down 6 cents from a year earlier to 33.7 cents. Because retail prices decreased more than farm prices, the farm-retail spread declined by 1.7 cents to 37.6 cents. The decrease in the spread occurred in the wholesale-retail component, mainly the retailer's margin. The farm-wholesale spread (mainly the packer's margin) increased slightly. Commercial pork production in the third quarter was 9 percent larger than a year earlier.

The retail price for pork declined slightly in September reflecting a drop in farm value and in farm-retail spread. The retail price of pork averaged 71 cents per pound—down 0.6 cent from August. This decrease resulted from a 0.5 cent drop in farm value and a 0.1 cent decrease in marketing spread.

**Eggs:** As production of eggs continued well above year-earlier levels, prices at both farm and retail levels declined sharply. The retail price for Grade A large eggs averaged 51.5 cents per dozen in the third quarter—up slightly from the previous quarter, but 7.4 cents below a year earlier (table 22, p. 38). Decreases at the farm level were greater than at retail. Therefore, the farm-retail spread increased slightly in the third quarter from a year earlier.

In September, retail prices for eggs dropped 3.5 cents to 49.9 cents per dozen in response to a 5.5-cent drop at the farm level. Spreads widened 2.0 cents. Lower egg prices contributed significantly to the decline in cost of the overall market basket in September.

**Fresh Vegetables:** The retail cost of fresh vegetables dropped sharply in the third quarter this year, down 6 percent from the second quarter. This decrease resulted from a 17 percent drop in returns to farmers for commercial vegetables; marketing spreads decreased about 1 percent. Increased seasonal supplies of tomatoes, cabbage, cucumbers, and peppers sparked the drop in prices; other vegetables increased moderately. Retail cost for fresh vegetables in the third quarter averaged about 3 percent above a year earlier although returns to farmers for them were down about 2 percent. Consequently, marketing spreads widened about 6 percent.

**Fats and Oils:** The farm value of fats and oils products has risen 29 percent since the third quarter of 1970, reflecting sharp increases in farmers' prices for oilseed products—mainly soybeans. This increase comes on top of an increase of 22 percent from the third quarter of 1969 to the third quarter of 1970. This year's increase in returns to farmers was accompanied by little change in marketing margins. As a result, the retail cost of fats and oils products in the third quarter averaged 8

Table 3.--Beef, pork, and lamb: Retail price, carcass value, farm value, farm-retail spread, and farmer's share of retail price, annual 1968-70, quarterly 1970-71

Date	Gross:			Net:			Farm-retail spread		Farmer's share
	Retail price per pound	Carcass value	farm value	Byproduct value	allowance	farm value	Total	Carcass retail	
	1/	2/	3/	4/	5/		Cents	Cents	
Beef, Choice grade									
1968 .....	86.6	63.1	60.5	3.8	56.7	29.9	23.5	6.4	65
1969 .....	96.2	68.7	66.9	4.7	62.2	34.0	27.5	6.5	65
1970 .....	98.6	68.3	66.3	4.8	61.5	37.1	30.3	6.8	62
<u>1970</u>									
Jan.-Mar. .:	98.1	68.6	66.4	5.0	61.4	36.7	29.5	7.2	63
Apr.-June .:	99.3	69.3	68.2	4.9	63.3	36.0	30.0	6.0	64
July-Sept. .:	99.9	70.3	68.0	4.6	63.4	36.5	29.6	6.9	63
Oct.-Dec. .:	97.3	64.9	62.4	4.5	57.9	39.4	32.4	7.0	60
<u>1971</u>									
Jan.-Mar. .:	100.2	72.8	69.1	4.2	64.9	35.3	27.4	7.9	65
Apr.-June .:	104.8	75.3	72.8	4.6	68.2	36.6	28.5	8.1	65
July-Sept. .:	105.4	76.1	73.1	4.5	68.6	36.8	29.3	7.5	65
Oct.-Dec. .:									
Pork									
1968 .....	67.4	51.7	36.7	2.2	34.5	32.9	15.7	17.2	51
1969 .....	74.3	58.5	45.5	3.2	42.3	32.0	15.8	16.2	57
1970 .....	78.0	58.7	42.9	3.4	39.5	38.5	19.3	19.2	51
<u>1970</u>									
Jan.-Mar. .:	81.8	64.7	52.3	4.2	48.1	33.7	17.1	16.6	59
Apr.-June .:	80.0	60.6	45.4	3.5	41.9	38.1	19.4	18.7	52
July-Sept. .:	79.0	58.0	43.0	3.3	39.7	39.3	21.0	18.3	50
Oct.-Dec. .:	71.3	51.5	30.8	2.4	28.4	42.9	19.8	23.1	40
<u>1971</u>									
Jan.-Mar. .:	69.2	50.2	33.2	2.6	30.6	38.6	19.0	19.6	44
Apr.-June .:	68.8	49.9	32.5	2.6	29.9	38.9	18.9	20.0	43
July-Sept. .:	71.3	52.8	36.5	2.8	33.7	37.6	18.5	19.1	47
Oct.-Dec. .:									
Lamb, Choice grade									
1968 .....	92.9	68.2	60.0	6.4	53.6	39.3	24.7	14.6	58
1969 .....	100.7	74.8	66.9	7.6	59.3	41.4	25.9	15.5	59
1970 .....	105.5	73.8	65.1	6.4	58.7	46.8	31.7	15.1	56
<u>1970</u>									
Jan.-Mar. .:	104.8	73.6	68.1	8.0	60.1	44.7	31.2	13.5	57
Apr.-June .:	105.1	73.5	65.1	6.4	58.7	46.4	31.6	14.8	56
July-Sept. .:	106.2	75.0	65.7	5.6	60.1	46.1	31.2	14.9	57
Oct.-Dec. .:	106.1	73.3	61.4	5.5	55.9	50.2	32.8	17.4	53
<u>1971</u>									
Jan.-Mar. .:	106.5	69.0	58.9	6.0	52.9	53.6	37.5	16.1	50
Apr.-June .:	108.5	76.7	66.1	6.3	59.8	48.7	31.8	16.9	55
July-Sept. .:	112.1	79.3	65.5	5.6	59.9	52.2	32.8	19.4	53
Oct.-Dec. .:									

1/ Estimated weighted average price of retail cuts. 2/ For quantity equivalent to 1 lb. of retail cuts: Beef: 1.41 lb. of carcass beef; pork, 1.07 lb. of wholesale cuts; lamb, 1.18 lb. of carcass lamb. 3/ Payment to farmer for quantity of live animal equivalent to 1 lb. of retail cuts: Beef, 2.28 lb.; pork, 1.97 lb.; lamb, quantity varies by months from 2.42 lb. in May to 2.48 lb. in October. 4/ Portion of gross farm value attributed to edible and inedible byproducts. 5/ Gross farm value minus byproduct allowance.

percent above a year earlier, directly reflecting the rise in farm value. In recent years, margins for fats and oils products have been relatively stable.

## COSTS AND PROFITS IN MARKETING FARM PRODUCTS

Marketing spreads (the difference between prices consumers pay for foods and prices farmers receive) are made up of two parts: marketing costs and profits. Marketing spreads rose sharply in 1970 and the first 9 months of this year. These have been reflected in higher retail food costs. Widening marketing spreads and higher food costs have been due largely to rising marketing costs such as labor, packaging, and transportation.

The data presented here on changes in major marketing costs and profits generally reflect developments before the inauguration of the President's new economic policy in August which established ceilings on prices, wages, and rents. In October, a Price Commission and Wage Board were established to determine guidelines for increases in prices, wages, and rents after the 90-day freeze expires on November 13th. Future trends in marketing costs and profits will be influenced by the guidelines issued by those boards.

### Labor Costs

Direct labor costs amount to about one-half of all costs incurred by firms processing and distributing farm products, based on estimates of total marketing charges, and by a greater share if labor costs involved in transportation of products are considered. Thus, labor costs are a major influence on marketing margins and consumer outlays for food. Labor costs are affected by several factors, particularly hourly earnings of employees and output per man-hour of labor. In the past, increases in output per unit of labor (productivity) helped to keep the cost of labor per unit of output from rising as much as hourly earnings.

*Hourly Earnings:* Average hourly earnings of employees in firms processing and distributing food products have been increasing at an increasing rate for several years. Earnings in August 1971 were up 7.3 percent over a year earlier compared with annual increases of 6.7 percent in 1970, and 6.4 percent in 1969 (table 4). Hourly earnings have been increasing throughout the economy. In the third quarter of this year, hourly earnings of employees in the total private nonagricultural sector of the economy averaged \$3.45, 5.8 percent higher than a year earlier.

Increases in hourly earnings for food marketing firms were led by food wholesalers. Hourly earnings of employees of food wholesalers in August of this year averaged \$3.51, up 8.7 percent from a year earlier. During the same period, hourly earnings of retail food store employees rose 8.1 percent to \$2.93 per hour, and earnings of food manufacturing employees rose 6.4 percent to \$3.33 per hour. Hourly earnings of eating and

drinking place employees increased the least—4.8 percent to \$1.95 per hour.

Hourly earnings of employees in establishments manufacturing and retailing nonfood farm products also have increased in recent years. In tobacco manufacturing, hourly earnings averaged \$2.92 in 1970, up 11½ percent over 1969. During the same period, hourly earnings of persons employed by retail apparel and accessory stores rose 5.6 percent to \$2.26 per hour. Textile mill product employees' hourly earnings rose 4.7 percent in 1970 over 1969 to \$2.45 per hour. Persons employed by apparel and related product manufacturers had the smallest rise in hourly earnings, 3.5 percent to \$2.39 per hour. Earnings for each of these industries continued to rise this year prior to the wage freeze at about the same rate as last year (table 5).

*Productivity:* Output per man-hour increased slightly throughout the economy in 1970, although the rise was below the 10-year average annual increase. Recent Department of Labor data show an increase in output per man-hour of 0.5 percent in the nonfarm private economy last year compared with a 0.1 percent decline from 1968 to 1969. This, coupled with higher wage rates, resulted in a rise in unit labor costs and the general level of prices of goods and services.

Recent estimates of output per man-hour in food marketing are available only for food manufacturing firms (table 6). Output per man-hour in food manufacturing increased 1½ percent from 1969 to 1970 compared with a 0.8 percent decline a year earlier. The average annual increase for the past decade was 2.9 percent. The rise reflected an increase in factory output without an increase in the number of man-hours worked. Since hourly earnings of employees went up sharply, labor costs per unit of output in food manufacturing probably rose substantially last year.

Over the years, food marketing firms (manufacturers, wholesalers, retailers, eating places) have been able to partially offset rising hourly earnings and other labor costs by increasing labor productivity. In the past decade, total labor costs (wage, salaries, and fringe benefits) increased 70 percent while unit labor costs (labor costs divided by volume of product marketed) increased 42 percent. Since 1967, labor costs of marketing firms have increased 28 percent while unit labor costs have increased 21 percent, reflecting gains in productivity.

### Transportation Charges

The combined index of railroad freight rates for all agricultural commodities averaged 114 in 1970, up 11 points from 1969. Similarly, the combined index for food products increased 11 points to 116. Each index continued an upward trend that began in the late 1960's, but the increases were much sharper than in the previous years (table 7).

Indexes for individual commodities or commodity groups increased from 9 to 13 points in 1970 over 1969.

Table 4.--Hourly earnings of employees of firms marketing food, annual 1958-70,  
monthly 1970-71

Year and month	Manufacturers	Wholesalers	Retail food stores	Food marketing	Eating & drinking places
:					
----- <u>Dollars</u> -----					
:					
1958 .....	1.94	1.89	1.59	1.82	---
1959 .....	2.02	1.97	1.60	1.88	---
1960 .....	2.11	2.03	1.68	1.96	---
1961 .....	2.17	2.09	1.76	2.03	---
1962 .....	2.24	2.16	1.83	2.10	---
1963 .....	2.30	2.23	1.90	2.16	---
1964 .....	2.37	2.28	1.98	2.23	1.25
1965 .....	2.43	2.36	2.05	2.30	1.30
1966 .....	2.52	2.50	2.13	2.40	1.40
1967 .....	2.64	2.66	2.23	2.52	1.49
1968 .....	2.79	2.83	2.38	2.67	1.62
1969 .....	2.95	3.00	2.54	2.84	1.73
1970 .....	3.16	3.21	2.70	3.03	1.85
:					
<u>1970</u> :					
January ....	3.08	3.17	2.62	2.94	1.79
February ....	3.08	3.16	2.64	2.96	1.82
March ....	3.10	3.17	2.65	2.97	1.83
April ....	3.12	3.17	2.67	2.99	1.83
May ....	3.16	3.21	2.69	3.02	1.84
June ....	3.15	3.18	2.68	3.01	1.84
July ....	3.16	3.18	2.69	3.02	1.85
August ....	3.13	3.23	2.71	3.02	1.86
September ...	3.20	3.28	2.76	3.08	1.89
October ....	3.20	3.27	2.75	3.07	1.89
November ....	3.24	3.30	2.79	3.11	1.90
December ....	3.27	3.29	2.77	3.12	1.91
:					
<u>1971</u> :					
January ....	3.32	3.37	2.81	3.17	1.92
February ....	3.33	3.41	2.84	3.19	1.93
March ....	3.34	3.40	2.85	3.20	1.94
April ....	3.37	3.42	2.87	3.22	1.93
May ....	3.38	3.47	2.90	3.25	1.95
June ....	3.38	3.49	2.91	3.25	1.95
July ....	3.39	3.49	2.92	3.26	1.94
August ....	3.33	3.51	2.93	3.24	1.95
:					

1/ Weighted composite earnings of production employees in food manufacturing and nonsupervisory employees in wholesale and retail food trade calculated by the Economic Research Service from data of the U.S. Department of Labor.

Table 5.--Hourly earnings of employees of firms marketing nonfood agricultural products,  
annual 1958-70, monthly 1970-71 1/

Year and month	Manufactures			Retail apparel and accessories stores
	Tobacco	Textile-mill products	Apparel and related products	
	----- Dollars -----			
1958 .....	1.59	1.49	1.54	1.39
1959 .....	1.64	1.56	1.56	1.44
1960 .....	1.70	1.61	1.59	1.46
1961 .....	1.78	1.63	1.64	1.50
1962 .....	1.85	1.68	1.69	1.55
1963 .....	1.91	1.71	1.73	1.59
1964 .....	1.95	1.79	1.79	1.63
1965 .....	2.09	1.87	1.83	1.71
1966 .....	2.19	1.96	1.89	1.79
1967 .....	2.27	2.06	2.03	1.89
1968 .....	2.48	2.21	2.21	2.03
1969 .....	2.62	2.34	2.31	2.14
1970 .....	2.92	2.45	2.39	2.26
1970 .....				
January .....	2.86	2.42	2.36	2.21
February .....	2.89	2.42	2.36	2.23
March .....	2.90	2.42	2.37	2.21
April .....	2.98	2.42	2.37	2.24
May .....	2.99	2.43	2.36	2.25
June .....	3.03	2.43	2.38	2.26
July .....	3.03	2.43	2.38	2.26
August .....	2.78	2.44	2.40	2.25
September ....	2.88	2.46	2.44	2.30
October ....	2.83	2.50	2.42	2.30
November ....	2.93	2.52	2.44	2.30
December ....	3.00	2.53	2.45	2.30
1971 .....				
January .....	3.01	2.54	2.46	2.33
February .....	3.02	2.54	2.48	2.34
March .....	3.11	2.55	2.48	2.32
April .....	3.25	2.55	2.47	2.38
May .....	3.30	2.56	2.47	2.37
June .....	3.30	2.56	2.47	2.38
July .....	3.33	2.56	2.47	2.37
August .....	3.18	2.58	2.49	2.36
September ....	3.08	2.59	2.52	
October ....				
November ....				
December ....				

1/ U.S. Department of Labor; production workers or nonsupervisory workers only.

Table 6.--Output per man-hour in establishments manufacturing farm-originated foods, by industry, 1960-70 1/  
 (1967 = 100)

Year	Output	Man-hours	Output per man-hour	Output	Man-hours	Output	Man-hours	Output	Man-hours
:									
All foods <u>2/</u>				Meat products <u>3/</u>				Poultry and eggs <u>4/</u>	
:									
1960 ...	83	105	79	81	108	75	62	79	78
1961 ...	86	104	83	82	104	78	73	86	84
1962 ...	88	102	87	83	102	81	72	81	89
1963 ...	91	99	92	87	101	86	76	86	88
1964 ...	95	101	94	94	108	87	80	88	91
1965 ...	96	99	97	91	101	91	85	91	93
1966 ...	98	99	99	96	99	97	92	95	97
1967 ...	100	100	100	100	100	100	100	100	100
1968 ...	103	98	105	103	98	105	96	102	94
1969 ...	103	99	104	103	97	106	102	109	94
1970 ...	104	99	105	106	99	107	114	116	98
:									
Dairy products <u>5/</u>				Processed fruits and vegetables <u>6/</u>				Grain-mill products <u>7/</u>	
:									
1960 ...	93	121	77	73	92	79	84	108	77
1961 ...	95	119	80	78	93	85	87	107	82
1962 ...	96	114	85	85	93	91	91	106	86
1963 ...	99	109	91	82	91	90	96	99	97
1964 ...	100	108	93	87	93	94	98	101	98
1965 ...	101	105	97	91	96	95	98	99	98
1966 ...	100	101	99	96	99	97	100	99	102
1967 ...	100	100	100	100	100	100	100	100	100
1968 ...	100	95	105	109	102	106	103	88	116
1969 ...	99	92	107	104	105	99	104	90	116
1970 ...	98	91	108	108	104	104	104	89	117
:									

1/ Output per man-hour indexes were computed from unrounded indexes of man-hours worked by all employees and factory output. Man-hour estimates for 1960-69 are based on data published by the Bureau of Census. Estimates for 1970 were interpolated from employment statistics published by BLS. Output estimates are based on value added indexes published by the Bureau of Census projected for non-census years by physical output data published by the USDA. Data for 1964-70 are preliminary. 2/ Establishments primarily engaged in manufacturing shortening and cooking oils, margarine, macaroni, and spaghetti, as well as industry groups shown on this table. 3/ Meat-packing plants and establishments specializing in prepared meat products. 4/ Poultry-dressing plants and establishments specializing in processed egg products. 5/ Plants engaged in processing fluid milk and cream, butter, natural cheese, concentrated milk, ice cream and ices, and special dairy products. 6/ Establishments primarily engaged in canning and freezing fruits and vegetables and manufacturing pickles and sauces. 7/ Establishments primarily engaged in manufacturing flour and meal, cereal products, rice milling, blended and prepared flour, and corn wet milling products. (Continued)

Table 6.--Output per man-hour in establishments manufacturing farm-originated foods, by industry, 1960-70 1/--Continued  
(1967 = 100)

Year	: Output	: Man- hours	: Output per man- hour	: Output	: Man- hours	: Output per man- hour	: Output	: Man- hours	: Output per man- hour
	:	:	:	:	:	:	:	:	:
:									
	Bakery products <u>8/</u>				Sugar <u>9/</u>				Confectionery <u>10/</u>
	:	:	:	:	:	:	:	:	
1960 ...	91	118	77	74	95	78	80	98	81
1961 ...	91	115	79	76	99	78	82	100	83
1962 ...	94	114	82	85	94	91	83	100	83
1963 ...	95	107	89	100	103	97	87	95	92
1964 ...	98	108	91	104	111	93	90	97	93
1965 ...	99	106	94	97	104	93	92	97	95
1966 ...	99	105	94	99	101	99	97	98	99
1967 ...	100	100	100	100	100	100	100	100	100
1968 ...	102	99	103	110	103	107	104	100	104
1969 ...	104	101	102	104	104	100	103	101	102
1970 ...	100	101	99	111	105	105	104	98	106
	:	:	:	:	:	:	:	:	

8/ Establishments primarily engaged in manufacturing biscuits and crackers, wholesale bakeries, grocery chain bakeries, home service bakeries, and retail multi-outlet bakeries (excluding nonbaking outlets except those retail units at the same location as the bakery). 9/ Establishments primarily engaged in manufacturing raw cane sugar from domestically grown cane and plants mainly engaged in the production of beet sugar. 10/ Establishments primarily engaged in manufacturing candy and other confections.

Table 7.--Railroad freight rate indexes for specified agricultural commodities,  
1958-70 1/

(1967=100)

Year	Livestock	Meat	Fruits and vegetables	Wheat	All grains
1958 .....	108	132	109	122	120
1959 .....	106	121	102	120	116
1960 .....	105	121	100	119	115
1961 .....	104	121	101	119	114
1962 .....	102	120	100	116	113
1963 .....	100	117	99	114	111
1964 .....	99	113	99	111	108
1965 .....	99	104	99	99	101
1966 .....	99	100	99	99	100
1967 .....	100	100	100	100	100
1968 .....	104	103	103	101	100
1969 .....	108	107	108	102	100
1970 .....	119	117	118	113	109
:					
					Combined index
	Soybeans	Cotton	Wool	Tobacco	Food : All
					: products 2/ : products 3/
1958 .....	116	103	161	111	102
1959 .....	115	102	127	100	96
1960 .....	115	101	122	99	107
1961 .....	109	101	122	100	108
1962 .....	107	101	107	100	106
1963 .....	101	101	104	100	103
1964 .....	100	100	100	100	103
1965 .....	99	100	100	100	100
1966 .....	99	100	100	99	99
1967 .....	100	100	100	100	100
1968 .....	101	100	101	102	101
1969 .....	103	103	106	108	105
1970 .....	114	113	119	118	116
:					

1/ All indexes are of the weighted aggregative type and are based upon averages of rates in effect during the year. Annual averages are computed by weighting rates by the number of days they are in effect.

2/ In constructing the all farm food index, food product groups are weighted by average quantities marketed domestically in 1957-59.

3/ In constructing the all farm product index, farm product groups are weighted by average revenues for 1957-59.

Increases basically reflected an accumulation of general rate increases granted by the Interstate Commerce Commission in 1969 and 1970. A 6 percent increase approved in November 1969 (Ex Parte 262) was effective during all of 1970, and a 5 percent increase in the South and 6 percent rise in the East and West became effective in June 1970 (Ex Parte 265). Finally, a 6 percent increase, with some commodity exceptions, became effective in late November 1970 as the first stage of increases authorized under Ex Parte 267. In most respects, these increases were applied to all rates, but some downward adjustments occurred for competitive traffic.

#### Other Costs

In addition to labor and transportation costs, a wide variety of other expenses are incurred by food marketing firms. These include costs of containers and packaging materials, office supplies, rent, property insurance and maintenance, and utilities. The importance of these items is much greater for some marketing firms than for others. For example, container costs for some canned fruits and vegetables and breakfast cereals are nearly equal to the cost of labor employed by the firm processing these products.

Prices of intermediate goods and services (excluding raw materials) bought by food marketing firms averaged 7 percent higher in the third quarter of this year than a year earlier (table 8). Prices of containers and packaging materials were 5.6 percent higher. Fuel, power, and light rates increased 11 percent on top of a rise of 10 percent for the same period between 1960 and 1970. Prices of services (such as rent, insurance, and telephone) usually rise much more than goods and materials; they averaged 11.9 percent higher in the third quarter of this year than a year earlier.

In the past decade, prices of intermediate goods and services have risen 26 percent. Most of this increase has occurred since 1965. Prices of services have increased 46 percent while prices of goods have increased 12 percent.

Interest on short-term loans to business firms in 35 metropolitan centers declined to 6 percent in May 1971 compared with 8.07 percent in November 1970, sharply reversing the upward trend of recent years. Short-term rates averaged 8.21 percent in 1969 and 8.48 percent in 1970. Yields of long-term bonds have also declined. Moody's Aaa Bond had a yield of 7.59 percent in August 1971 compared with 8.13 percent in 1970.

#### Corporate Profits

*Food Manufacturers and Retailers:* While marketing costs have risen rapidly in recent years, profit ratios of food marketing firms have remained relatively stable. Profits after taxes of corporations manufacturing food and kindred products (excluding alcoholic beverages) averaged 2.3 percent of sales in 1970, down slightly from 1969. However, returns on stockholders' equity rose in 1970 to 10.6 percent. In the first half of 1971,

profit ratios averaged higher than a year earlier (table 9). Profit ratios of dairy and bakery manufacturers, 2 of the largest industries, followed the same trend as all food manufacturers.

Profits after taxes of 15 leading food chains averaged 1.1 percent of sales in the first half of this year, unchanged from recent years. Profits as a percentage of stockholders' equity rose in 1970 over 1969.

*Nonfood Manufacturers:* Profits as percentage of sales increased in 1970 for tobacco manufacturers but declined for textile and apparel manufacturers. Profits of tobacco manufacturers were 5.8 percent of sales, up about 12 percent from 1969. Profits of textile and apparel manufacturers were 1.9 percent of sales, down 34 percent and 17 percent, respectively, from 1969.

Profits as a percentage of stockholders' equity also declined from 1969 to 1970 but averaged higher in the first half of 1971 than in 1970. Tobacco manufacturers, however, earned a higher percentage on stockholders' equity in 1970 than 1969 and earned a higher profit percentage in the first half of 1971 than a year earlier.

### RECENT DEVELOPMENTS IN MARKETING

#### Farm Marketings and Output

Farmers are expected to market about 4 percent more product this year. Calender year crop marketings may increase about 7 percent and livestock marketing about 3 percent, mainly reflecting increases in beef and pork production. Crop production this year will likely increase 12 percent over last year. Feed grain production may be up about 27 percent. All major crops may be more abundant except tobacco which is expected to decline about 5 percent from 1970 to 1971.

#### Manufacturers' Output and Retail Sales

Output of food products manufactured from raw farm material increased in the first half of 1971 while the output of nonfood products declined. Production of food manufacturers, as measured by the Federal Reserve Board Index, averaged 3.9 percent higher for the first 8 months of 1971 than a year earlier. In contrast, output of the tobacco industry declined 8 percent during the first half of 1971 compared with a year earlier. During the first 6 months of 1971, output fell in textile and apparel industries by 1.2 percent and 2.2 percent, respectively, from a year earlier.

Dollar sales of retail food stores and eating places in the first 7 months of 1971 increased 5.5 percent and 3.1 percent, respectively, over a year earlier. Price increases accounted for part of this increase in sales. Grocery store prices averaged 2 percent higher while prices in eating places advanced sharply—5.4 percent.

#### Exports of Farm Products

Exports of U.S. farm products increased sharply to a record \$7.8 billion in fiscal 1971, up 15 percent from

Table 8.--Prices of inputs bought by food marketing firms, annual 1958-70  
quarterly 1970-71

(1967=100)

Year and quarter	Intermediate goods and services					Yields on	
	Goods					New plant: high-grade	
	Total	Containers:	Fuel, and power,	Services	and equipment:	bonds, per annum	
	1/	packaging	and light	2/	3/	4/	
	: materials						
1958 .....	87	95	94	95	78	91	69
1959 .....	89	95	94	96	80	93	79
1960 .....	90	97	96	99	81	94	80
1961 .....	90	96	95	100	82	93	79
1962 .....	91	96	96	100	84	94	79
1963 .....	91	96	95	99	86	94	77
1964 .....	92	95	96	98	88	94	80
1965 .....	94	96	97	99	91	95	81
1966 .....	97	99	99	99	95	97	93
1967 .....	100	100	100	100	100	100	100
1968 .....	103	100	100	99	106	102	112
1969 .....	107	103	104	99	113	106	129
1970 .....	113	108	108	108	120	110	146
1970:	:						
Jan.-Mar. ....	111	106	107	103	116	108	143
Apr.-June ....	112	107	108	105	118	109	148
July-Sept. ...:	114	108	108	109	122	111	149
Oct.-Dec. ....	116	110	110	115	124	113	144
1971:	:						
Jan.-Mar. ....	117	111	111	118	125	113	131
Apr.-June ....	120	113	113	120	128	114	136
July-Sept. ...:	122	114	114	121	132	---	---
Oct.-Dec. ....							

1/ Also includes prices of office supplies, restaurant supplies, and many other goods.

2/ Rent, property insurance and maintenance, telephone, etc.

3/ Implicit price deflator for investment in nonresidential structures and producers' durable equipment, U.S. Department of Commerce.

4/ Aaa corporate bonds; Moody's Investor Service. These yields are indicative of the cost of current long-term borrowings.

Table 9.--Profit ratios (after Federal income taxes) of manufacturers of food, textiles, apparel and tobacco, and 15 retail food chains, annual 1960-70, quarterly 1970-71

Year and quarter	Manufacturing corporations 1/						:15 retail food chains 3/
	Food			Textile-mill	Apparel and other finished products		
	Total 2/	Dairy	Bakery	products	other finished products		
				:			
Profits as percentage of stockholders' equity							
1960 .....	9.2	---	---	5.8	7.7	13.0	
1961 .....	9.4	---	---	5.0	7.3	12.0	
1962 .....	9.2	---	9.2	6.2	9.3	11.7	
1963 .....	9.3	8.6	9.4	6.1	7.7	11.4	
1964 .....	10.4	9.5	9.1	8.6	11.9	11.5	
1965 .....	11.0	10.7	9.2	10.9	12.8	11.3	
1966 .....	11.5	11.4	10.9	10.3	13.8	11.4	
1967 .....	11.1	10.3	12.2	7.6	12.2	10.3	
1968 .....	10.9	9.8	11.9	8.8	13.0	10.3	
1969 .....	11.0	10.1	8.6	7.9	11.9	10.4	
1970 .....	10.9	10.2	8.8	5.1	9.3	10.6	
1970							
Jan.-Mar. ...	10.2	9.0	8.6	5.4	8.3	---	
Apr.-June ...	10.4	11.0	9.3	4.8	7.2	---	
1971							
Jan.-Mar. ...	10.5	9.8	9.8	4.6	5.5	---	
Apr.-June ...	11.7	11.5	12.2	7.2	10.9	---	
Profits as percentage of sales							
1960 .....	2.2	---	---	2.5	1.4	1.3	
1961 .....	2.2	---	---	2.1	1.3	1.2	
1962 .....	2.2	---	2.3	2.4	1.6	1.2	
1963 .....	2.2	1.9	2.2	2.3	1.4	1.2	
1964 .....	2.5	2.3	2.2	3.1	2.1	1.3	
1965 .....	2.6	2.5	2.1	3.8	2.3	1.2	
1966 .....	2.5	2.5	2.3	3.6	2.4	1.2	
1967 .....	2.4	2.4	2.6	2.9	2.3	1.1	
1968 .....	2.4	2.3	2.6	3.1	2.4	1.1	
1969 .....	2.4	2.2	1.9	2.9	2.3	1.1	
1970 .....	2.3	2.1	1.9	1.9	1.9	1.1	
1970							
Jan.-Mar. ...	2.2	1.9	1.9	2.1	1.7	1.1	
Apr.-June ...	2.2	2.3	2.0	1.8	1.5	1.0	
1971							
Jan.-Mar. ...	2.3	2.1	2.1	1.7	1.3	.9	
Apr.-June ...	2.5	2.3	2.6	2.6	2.4	1.2	

1/ Compiled from Quarterly Financial Report for Manufacturing Corporations published by the Federal Trade Commission and Securities and Exchange Commission.

2/ Food and kindred products excluding alcoholic beverages.

3/ Compiled from Moody's Industrial Manual.

fiscal 1970. Larger volume accounted for two-thirds of the increase while the other third was attributed to higher prices. Soybeans, wheat, cotton, inedible tallow, nuts, slaughter cattle, and dairy products had notable increases in quantity exported. Higher prices helped boost sales of soybean and soybean products, feed grains, cotton, tobacco, and inedible tallow. In fact, the unit price of every major commodity except rice increased.

Commercial sales for dollars in fiscal 1971 set a new record—19 percent above the previous record set in fiscal 1970. Substantial gains in CCC credit sales and barter for offshore procurement helped raise the commercial sales total. Exports under government financed programs in fiscal 1971 were about the same as in fiscal 1970.

The best customers for U.S. farm products were the developed countries, mainly those in Western Europe, Japan, and Canada. These countries increased their purchases by one-fifth in fiscal 1971 and accounted for three-fourths of the increase in the year's rise in exports.

#### Capital Expenditures by Marketing Firms

Food and beverage manufacturers plan to spend \$2.7 billion for new plant and equipment in 1971, according to surveys by the Office of Business Economics and the Securities and Exchange Commission (table 10). This would be 6.3 percent less than in 1970. However, this cutback is not as sharp as for some nonfood manufacturers. Part of the expenditures will be absorbed by higher prices for new plant and equipment which were 3.6 percent higher than a year earlier in the second quarter of this year.

Plant and equipment expenditures of textile manufacturing firms are expected to total about \$0.6 billion in 1971, the same as last year. Capital spending by railroads will decline this year to \$1.6 billion compared with \$1.8 billion in 1970. However, capital expenditures by other transportation firms, excluding air, are expected to total \$1.3 billion in 1971—a 7.3 percent increase.

Table 10.--Capital expenditures for new plant and equipment by firms manufacturing and transporting farm products, 1960-71

Year	Manufacturers		Transportation	
	Food and	Textile	Railroad	Non-rail
	beverage			excluding air
:				
<u>Billion dollars</u>				
:				
1960 .....	1.34	0.37	1.16	1.30
1961 .....	1.52	.33	.82	1.23
1962 .....	1.51	.38	1.02	1.65
1963 .....	1.53	.43	1.26	1.58
1964 .....	1.72	.52	1.66	1.50
1965 .....	1.83	.66	1.99	1.68
1966 .....	2.10	.82	2.37	1.64
1967 .....	2.08	.68	1.86	1.48
1968 .....	2.21	.53	1.45	1.59
1969 .....	2.59	.63	1.86	1.68
1970 .....	2.84	.56	1.78	1.23
1971 1/ .....	2.66	.58	1.64	1.32
:				

1/ Estimates based on reports by business in late July and August 1971. Data from Securities and Exchange Commission and Office of Business Economics, Department of Commerce.

# FOODS PURCHASED BY THE FOODSERVICE INDUSTRY

905042

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**ABSTRACT:** *The retail value of food and nonalcoholic beverages moving through the market for food away from home in 1969 was estimated at \$35 billion. In poundage dairy products and vegetables represented two of the principal food groups used by this industry. Other food groups of importance included bakery products, beef, beverages, sugar and sweets, and poultry and eggs. Within these food groups 23 individual products each accounted for 400 million pounds or more and the combined sum represented over one-half of the 37 billion pounds of food received by foodservice outlets. Five of the products each accounted for 1 billion or more pounds. These were fresh whole white milk, ground beef, white potatoes, cola soft drinks, and hamburger buns.*

**KEY WORDS:** *Foodservice industry, food service, restaurants, market for food away from home, away-from-home eating.*

The foodservice industry, consisting of about 500,000 mass feeding outlets, represents a major market for the food produced by the Nation's farms. It also is a substantial market for foodservice equipment and other supplies and services as well as a major employer.

The retail value of food and nonalcoholic beverages consumed away from home was estimated at \$35 billion for 1969. The cost of food to operators was \$16 billion. The significance of this market is apparent when compared with the total value of food consumed, which amounted to \$115 billion or \$567 per person in 1969<sup>1</sup>. The retail value of food moving through foodservice outlets was equal to \$172 per person, or a little less than 1 of every 3 food dollars.

## **Businesses that Provide Food Service**

The kinds of businesses that comprise the industry may be classified into two basic sectors—public and institutional. Public businesses exist primarily to sell a product or service for profit. Public food service may be provided as a subordinate department—such as a drugstore soda fountain, a bowling alley snack bar and a department store restaurant—or as the major kind of business—such as separate eating places.

In 1966 there were about 202,000 separate eating places in the 48 contiguous States. Separate drinking places comprised the next largest segment, numbering almost 52,000. They were followed by retail stores, recreation and amusement places, hotels and motels, and drugstores. Although more recent data on number of establishments are not available, estimates of the value of the total market for food away from home were updated in 1969. At that time, public establishments accounted for \$24 billion or 70 percent of the total value of food consumed away from home. Separate eating places alone accounted for more than \$16 billion (table 11). Hotels, motels, and tourist courts contributed an additional \$1.6 billion and separate drinking places

added another \$1.2 billion.

In the institutional sector, the primary purpose of such businesses as universities, sanatoriums, and homes for children is viewed as rendering a service rather than a profit. Food service in institutions is usually supportive in nature. Additionally, the variety of foods purchased, the methods of ordering, and the sources of supply are often quite different from establishments serving the public generally.

Schools and colleges are by far the largest segment in the institutional sector. About 79,000 establishments in this group provided food service in 1966. Food service was also provided in over 11,000 hospitals and sanatoriums and rest homes. Data on number of establishments associated with the military services are not available, but these operations accounted for about 30 percent of the value of food used.

The value of food served in institutions in 1969 amounted to \$10.5 billion, roughly a third of the value of all foods served away from home. Schools and colleges and the military services represented major markets for food in the institutional sector.

Food costs of all businesses were estimated at \$16 billion for 1969. Although most food purchases were made at wholesale, some purchases were made at other levels of distribution, including retail. Establishments in the institutional sector accounted for about a third of the total value of foods purchased. The school market is the largest segment of the institutional sector with about 44 percent of total volume.

## **The Market for Individual Foods**

A recent study of the foodservice industry established for the first time the market for food away from home.<sup>2</sup> Findings show the quantity and value of food received in 1969.

<sup>1</sup> Includes personal food expenditures, nonpersonal food expenditures such as business purchase of meals, and the estimated value of food donated by government agencies to schools and needy persons.

<sup>2</sup> Van Dress, Michael G. *The food Service Industry: Type, Quantity, and Value of Foods Used*. Econ. Res. Scr., USDA, Stat. Bul. 476, 452 pp., Nov. 1971. The survey did not include food operations connected with the military services, elementary and secondary schools, Federal hospitals, correctional institutions, commercial passengers carriers, and boardinghouses.

Table 11.--Estimated number of establishments with food service, and retail and purchase value of food and nonalcoholic beverages received,  
United States, 1969

Kind of business	Establishments	Retail value	Cost of food purchased
	<u>Number</u> 1/	<u>Mil. dol.</u>	<u>Mil. dol.</u>
Public sector			
Separate eating places ...:	201,734	16,367.7	7,185.4
Separate drinking places ..:	51,646	1,188.7	555.1
Drug or proprietary stores .....	12,013	350.0	154.7
Retail stores .....	22,820	1,149.7	493.2
Hotels, motels, or tourist courts .....	16,558	1,636.9	723.5
Recreation or amusement places .....	19,411	897.1	399.2
Civic, social, or fraternal associations ...:	4,355	176.3	69.3
Factories, plants, or mills .....	6,784	772.0	394.5
Intransit feeding .....	<u>2/</u>	813.0	406.0
Other public establishments .....	<u>8,429</u>	<u>676.7</u>	<u>281.5</u>
Total .....	---	24,028.1	10,662.4
Institutional sector			
Hospitals .....	6,338	1,506.6	723.1
Sanatoria, convalescent, or rest homes .....	5,118	247.3	119.2
Homes for children, the aged, the handicapped, or mentally ill .....	4,092	399.3	184.1
Schools and colleges .....	79,175	4,606.8	2,235.9
Military service .....	<u>2/</u>	3,135.0	1,568.0
Correctional institutions..	<u>2/</u>	116.0	58.0
Other institutional establishments .....	<u>15,043</u>	<u>471.2</u>	<u>215.4</u>
Total .....	---	10,482.2	5,112.7
Grand total .....	---	34,510.3	15,775.1

1/ Estimated for 1966.

2/ Not available.

Dairy products and ices, and vegetables represented the two largest food groups, each accounting for about 18 percent of the quantity of all foods received. Altogether, the dinner platter of foods eaten away from home is comprised of 16 major food groups. Groups which accounted for 5-10 percent of total quantity were bakery products, beef, beverages, sugar and sweets, and poultry and eggs (table 12). Although beef accounted for less than 10 percent of the quantity, it was the dominant food group in dollar value of purchases, accounting for 22 percent of the cost of all purchases. Of the 16 major food groups, 8 accounted for more than four-fifths of the value of all foods received (table 13).

The number of products in each of the 16 major food groups varies considerably. The vegetable group has many individual items; the beverages group has few. Despite the number of items in a group, a relatively small number account for a major portion of the total quantity and dollar value of a food group. In 6 of the 16 major food groups, 1 or 2 individual food items accounted for 50 percent or more of the quantity and value; another 3 groups were dominated by 3 items; and in all but 1 major food group, at least 50 percent of the quantity and dollar value was explained by 5 or less products.

Fresh whole milk was the leading dairy product, accounting for 52 percent of the dairy group's total quantity of 7 billion pounds, and 32 percent of its cost value of \$1.4 billion. Cheese and ice cream also contributed substantially to total purchases. Positioning within fats and oils shifted from solid shortening when quantity was the unit of measure to butter when dollar value of purchases was considered. Solid shortening accounted for one-fourth of the quantity, and butter for one-third of the value.

The influence of higher cost items within groups is clearly evident in the flour and cereal products. Flour explained 44 percent of the group's quantity of 1.2 billion pounds, but it accounted for 25 percent of the dollar value. Conversely, prepared flour mixes accounted for one-fourth of the value and 18 percent of the quantity. In bakery products the major item was hamburger buns—in both quantity and value. Pies and white bread were other principal items.

Ground beef contributed substantially to the total quantity of beef, accounting for 44 percent. Beefsteak was first in value because of its higher unit cost. But, ground beef was a close second with more than 30 percent of the total value. Roasts accounted for 13 percent of the quantity and 14 percent of the value of receipts. Of the other meats, ham was the most important item in the group, representing about a fifth of the quantity and dollar value.

In the poultry and egg group, broilers and fryers, fresh eggs, and turkeys accounted for nearly all purchases. Broilers and fryers alone represented over two-fifths of total quantity and value. An additional third was accounted for by fresh eggs.

Shrimp was the foremost item on the list of fish and shellfish products, accounting for 29 percent of total dollar purchases. Lobster, though fourth in quantity, was second in dollar value of purchases with 18 percent of the total. Beverage fountain syrup, with almost half of the value, was the chief product in the sugars and sweets group. White sugar was also of consequence, accounting for 21 percent of the quantity and 13 percent of the value. With only 6 percent of the quantity, candy was second in value, accounting for 18 percent.

Vegetables represented 18 percent of the total quantity and 9 percent of the cost value of all foods. Prominent items within the group were potatoes, lettuce, onions, tomatoes, and green beans. Only potatoes and lettuce accounted for more than 10 percent of the group's total value. No single item stood out in the fruits group, although melons and apples were major contributors to quantity; oranges, lemons, and peaches were not far behind. No item represented more than 13 percent of the cost value of purchases in this group.

In juices, ades, and drinks, more than half the quantity and dollar value of receipts was attributed to orange juice and tomato juice. Orange juice alone represented 45 percent of the value of purchases and 34 percent of total quantity.

In the beverage group, soft drinks explained almost two-thirds of the 2.6 billion pounds received. Cola drinks represented 44 percent, twice as much as fruit type soft drinks. Together, roasted and ground coffee beans represented the top item of the beverage group in value, with 46 percent of total purchases. This item ranked third in quantity.

Soups as a single food item accounted for about three-fourths of the 390 million pounds attributed to soups, sauces, and gravies. Sauces and gravies represented about 17 percent of both value and quantity. In the nuts, condiments, and leavenings group, catsup and pickles were principal items in quantity and value of receipts. Catsup accounted for about a fourth of the value and quantity. Nuts and peanut butter ranked second in value and fifth in quantity.

*Use of Individual Foods:* Of all products received, 23 each had 400 million pounds or more, and combined they accounted for over half the estimated 37.2 billion pounds used by businesses represented in the study. Among the products, 5 were meat and poultry items, 5 were vegetables, and 3 were dairy products. Five items were of paramount importance, each accounting for 1 billion or more pounds of the total quantity received: fresh whole milk, ground beef, white potatoes with peel, cola soft drinks, and hamburger buns.

When the products which contributed substantially to the total value of purchases are considered, a different picture emerges. Twenty-four items each had a purchase value of more than \$100 million and a combined total of \$6.6 billion, or about 55 percent of the total value of purchases (table 14).

Table 12.--Public eating establishments and institutions with food service:  
 Poundage distribution of food received by food group, United States,  
 1969 1/

Food group	Public eating establishments	Institutions	Total
:			
: -----Percent-----			
Dairy products and ices.....	13.7	5.2	18.8
Fats and oils.....	4.3	.5	4.8
Flour and cereal products.....	2.4	.7	3.1
Bakery products.....	8.3	1.3	9.6
Beef.....	7.5	1.1	8.6
Other meats.....	3.5	.8	4.3
Poultry and eggs.....	4.3	1.0	5.2
Fish and shellfish.....	2.4	.2	2.7
Sugar and sweets.....	6.0	.7	6.7
Vegetables.....	15.5	2.6	18.1
Fruits.....	2.1	1.4	3.6
Juices, ades and drinks.....	1.2	.9	2.1
Beverages.....	6.5	.6	7.0
Soups, sauces and gravies.....	.7	.3	1.0
Prepared foods and mixtures...:	.7	.2	.9
Nuts, condiments, leavenings...:	2.9	.4	3.2
:			
Total.....	82.0	18.0	100.0
:			

1/ Due to rounding, data may not add to totals.

Table 13.--Public eating establishments and institutions with food service:  
 Distribution of value of food received by food group, United States,  
 1969 1/

Food group	: Public eating establishments	: Institutions	: Total
:	:	:	
<u>Percent</u>			
:	:	:	
Dairy products and ices.....:	9.1	2.6	11.7
Fats and oils.....:	3.8	.5	4.3
Flour and cereal products.....:	1.1	.4	1.5
Bakery products.....:	7.7	1.1	8.9
Beef.....:	19.2	2.6	21.9
Other meats.....:	8.0	1.9	9.9
Poultry and eggs.....:	5.1	1.2	6.3
Fish and shellfish.....:	7.3	.6	7.9
Sugar and sweets.....:	3.8	.4	4.3
Vegetables.....:	7.8	1.4	9.1
Fruits.....:	1.3	.3	2.1
Juices, ades and drinks.....:	.8	.5	1.3
Beverages.....:	5.2	.8	6.0
Soups, sauces and gravies.....:	.6	.2	.8
Prepared foods and mixtures....:	1.1	.3	1.4
Nuts, condiments, leavenings....:	2.1	.4	2.6
:	:	:	
Total.....:	84.3	15.7	100.0
:	:	:	

1/ Due to rounding, data may not add to totals.

Table 14.--Public eating establishments and institutions with food service:  
Quantity and value of selected food products, United States, 1969 1/

Food product	Quantity	Value
	<u>Mil. lb.</u>	<u>Mil. dol.</u>
Fresh whole milk .....	3,660.4	451.2
Ground beef .....	1,415.9	832.3
White potatoes with peel .....	1,341.2	<u>2/</u>
Cola soft drinks .....	1,143.2	153.0
Hamburger buns .....	1,001.1	214.1
Frozen french-fried potatoes .....	971.5	183.2
Beverage fountain cola syrup .....	967.5	161.2
Broilers and fryers, excluding parts ...	855.0	313.0
Beefsteak .....	723.6	940.4
Eggs in shell .....	709.7	231.9
Bread, white, buttermilk, potato .....	642.5	132.6
Head lettuce, crisp-type .....	619.7	114.5
Ice cream, bulk and packaged .....	601.6	212.5
White sugar, granulated .....	524.0	<u>2/</u>
Fruit-type soft drinks .....	497.8	<u>2/</u>
Cheese .....	459.2	261.1
All-purpose flour, plain .....	456.4	<u>2/</u>
Carcass beef and wholesale cuts .....	452.3	350.8
Solid shortening, deep-fry .....	443.0	<u>2/</u>
Onions, mature .....	434.2	<u>2/</u>
Coffee, bean and ground .....	422.1	338.7
Fresh tomatoes .....	414.6	100.6
Beef roasts .....	405.8	370.5
Shrimp .....	<u>3/</u>	281.9
Ham .....	<u>3/</u>	278.3
Butter .....	<u>3/</u>	176.2
Lobster .....	<u>3/</u>	171.6
Frankfurters .....	<u>3/</u>	141.9
Bacon (except Canadian) .....	<u>3/</u>	118.9
Pies, ready-to-eat .....	<u>3/</u>	108.4
Total .....	19,162.3	6,638.8

1/ Does not include the quantity and value of products received by elementary and secondary schools, the military services, Federal hospitals, correctional institutions, intransit feeders, and boarding houses.

2/ Less than 100 million, omitted from total.

3/ Less than 400 million pounds, omitted from total.

## Sources of Supply

Institutional middlemen offering two or more product lines are by far the principal suppliers of the foodservice industry. In 1969, they handled about 52 percent of the dollar value of all food transactions involving primary suppliers. Primary suppliers are sources from which most food is purchased. Multiple-line middlemen handle food items from 2 or more major food groups, such as dairy products and bakery products as contrasted to specialty middlemen who offer only a single line of products, such as fresh fruits and vegetables. Additionally, institutional middlemen primarily supply eating places while grocery middlemen cater to food stores. Next in importance as primary suppliers were single-line institutional middlemen who handled 17 percent of the value of all transactions involving primary suppliers. Following close behind with 11 percent were multiple-line grocery store middlemen. Single-line grocery store middlemen accounted for an additional 5 percent. Altogether, these middlemen accounted for 85 percent of the dollar value of transactions.

Retail foodstores, though the principal source of supply for 18 percent of the establishments, accounted for only 6 percent of the dollar value of transactions. Conversely, parent enterprises and commissaries were the principal source for a very small proportion of establishments but accounted for 6 percent of the value of transactions.

Although direct purchasing of food products from processors or manufacturers is not substantial, sources of supply for commissary type operations are not fully known. The retail history of distribution suggests, however, that direct purchasing will become increasingly important as a source of supply as the number and size of commissaries increase.

## Future Growth

Rising prices, growing population, and increasing consumer purchasing power should effect a rise in total dollar sales in eating places. Additionally, eating places are well suited to continue taking advantage of important related changes in American habits. Two of the most important changes are increased mobility and leisure time. Other changes are (1) the increase in the number of working wives who have less time to prepare meals at home, (2) the number of teenagers who are likely to frequent snack shops and hamburger stands, (3) the increase in college students often without facilities, inclination, or time to cook for themselves, and (4) the general inclination for more people to eat out more frequently. All of the trends appear likely to continue. Accordingly, the outlook for eating places, especially those catering to the changing habits of Americans, is bright.

# Consumer Response to the Dating of Food Products

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**ABSTRACT:** Slightly more than half of the 1,700 shoppers interviewed during a recent study were aware of readable dates on products in the store where they shopped. These interviews were conducted during March and April 1971 as part of a case study of the open dating program of a large Midwestern retail food chain. Only 20 percent of those who were aware of the program correctly interpreted the open dates as the pull date or last day the product can be sold. Many shoppers view the dates solely as an assurance of freshness. About two-thirds of those aware of the program and willing to be questioned in greater detail said they had used freshness codes at least once. Bread and milk were the items most frequently mentioned for use of dates, followed by refrigerated dough products, other dairy products, and eggs.

**KEY WORDS:** Food product codes, open dating, product dating, pull dates

In the spring of 1971, more than 1,700 women were interviewed at 18 stores of a large Midwestern retail food chain that has an extensive program of readable dates on food products. Slightly more than half those contacted said they were aware of readable dates, and nearly two-thirds of those interviewed in depth had used date information at least once. But the shoppers did not have a clear understanding of the meaning of the dates. They seemed only to associate dates with an indication of freshness and some time period.

These findings are based on an ERS case study of the open dating program introduced by the retail food chain in July 1970. The study was undertaken by ERS in response to a Congressional request for information on the need for and economic feasibility of mandatory food product dating. A full report of the findings is in preparation.

## Background

The first of many bills to require readable dates on foods was introduced in Congress in the spring of 1970. It called for amending the "Fair Packaging and Labeling Act to require a packaged perishable food to bear a label specifying the date after which it is not to be sold for consumption." This is what is generally referred to as the pull date. Although many Congressmen sponsored similar bills, no action or hearings on the measures took place during the 91st Congress.

When Congress requested information from the USDA, ERS assembled what was then available on the shelf life of foods and recommended further research on some unanswered questions. *The Rutgers Food Stability Survey*<sup>1</sup> presents data on quality control and self monitoring by the industry, as well as a review of scientific data on shelf life. But little was known about how readable dates, particularly if they were required by law, would affect consumer and retailers.

The purpose of the ERS research was to answer several questions -

Are consumers aware of open dates on food

products?

What do they think the dates mean?

For what products do shoppers use date information?

Does open dating affect product waste—and operating costs—in a store?

The findings presented here are from the first phase of ERS research and answer the questions dealing with consumers.

The company that cooperated in this study had first introduced and publicized freshness codes in the summer of 1970 with readable dates on about 150 private label products. A wide variety of foods were included—fresh meats and poultry, dairy products, bakery products, and less perishable items, like cake mixes, coffee, and pancake syrup. Generally the system used is a 3-letter, 2-digit date—such as DEC 21—and it represents the last day the product is offered for sale. In addition, a loose leaf notebook available at the service desk of each store gives explanations for codes used on most other products. Newspaper ads featured the introduction of the open dating program. Materials were also used in the stores to acquaint shoppers with dates and their meaning and the availability of the code book. In-store materials and newspaper ads explained that there is an at-home shelf life built into each item. That is, even if the shopper bought the item on the pull date, she would still have a reasonable amount of time to store it at home and use it while it still was of high quality.

To learn about shoppers' reactions to the program, each potential respondent was first interviewed briefly to see if she was aware of several in-store consumer information programs. If she was aware of readable dates on food items, she was asked to participate in a more detailed interview.

Interviews with shoppers were conducted at 18 randomly selected stores, 6 each in low, middle, and higher income neighborhoods during March and April 1971. More than 1,700 women were contacted, an average of about 95 per store; 429 shoppers who were aware of the readable dates agreed to participate in in-depth interviews on their understanding and use of the program.

<sup>1</sup>Food Stability Survey, Volume I and II, Rutgers, The State University, New Brunswick, N.J.; published in cooperation with Economic Research Service, USDA, 1971.

## Shoppers' Understanding of Readable Dates

The retail chain involved in this case study has used the term "freshness codes" to encompass its entire open dating program. When each shopper was asked what this term meant, the most frequent answer was simply that the date tells her an item is fresh.

All the items in the open dating program are marked with the pull date, but only 20 percent of the surveyed shoppers interpreted dates as having anything to do with how long the store may sell the products. Almost half identified freshness codes with a past date—like date of manufacture, or date of packaging or date of delivery—although all open dated products have a future date. When a shopper gave a specific interpretation of dates—that is, something other than freshness—the most frequent answer was that it represented how long the item had been in the store or on the shelf. Table 15 gives a breakdown of shoppers' interpretation of date information.

The variety of answers given and the frequency of answers involving past dates indicate that shoppers do not look carefully at dates on the items they purchase. Since so many women mentioned freshness, it seems that simply having date information readable, rather than elaborately coded, assures shoppers that the food will be fresh.

Shoppers' lack of concern about the precise meaning of codes or dates is confirmed by their lack of interest in the freshness code book available at each store's service desk. Although about 20 percent of the respondents did say they were aware of the availability of the code book, only 9 of the 429 women interviewed had *ever* used it. Six of these were interviewed at low, and 3 at middle income neighborhood stores.

## Shoppers' Use of Readable Dates

Of the 429 shoppers interviewed in depth about the open dating program, 270 (63 percent) said they had used the date information at least once. Three-fourths of those who had used dates said they did so frequently—that is, once a week or more or on every shopping trip. More than one-third of shoppers in each neighborhood reported they used open dates each time they shopped.

When each shopper was asked to list specific items for which she had used freshness codes, more than three-fourths of shoppers in higher income areas and about two-thirds of those in other areas mentioned only one or two items. Thirty-one percent of shoppers in low and middle income areas reported using codes for three or four items, while only 22 percent in higher income areas did so. Very few shoppers mentioned more than four items, and none named more than six.

Among those who had used freshness codes at least once, more than a third said they had used date information on bread, and almost as many mentioned milk (table 16). In addition, 29 percent used dates on other dairy products such as sour cream and cottage cheese, and refrigerated dough products, while 23

percent mentioned eggs. In other words these five groups—bread, milk, other dairy products, refrigerated dough products, and eggs—were cited in 70 percent of the 581 reported instances of use of freshness codes by shoppers.

There were also a few shoppers interviewed in each neighborhood who said they had used date information for items that do not, in fact, have easy-to-read dates on them. When questioned in detail, these shoppers nearly always indicated that a date was on the package—that is, they were not making use of the freshness code book. On the other hand, many items actually included in the program such as cookies, coffee, cake mixes, syrup, and tea bags, were rarely named by shoppers. Apparently the more perishable items, those that the shopper associates with a limited useful life, are the ones where a date is most important.

Each shopper was asked a few questions about the items she mentioned; for example, what the date told her about the item and how it influenced her use of it. Answers for specific items were very similar to general interpretations for the freshness codes. That is, knowledge of freshness was mentioned frequently, and packaging date, delivery date, last day of sale, or last day of use were also mentioned.

Only for refrigerated dough products was there any substantial agreement among shoppers on the meaning of the date. These products, unlike most of those that are now open dated, have been marked with a readable date for many years. In most instances, the manufacturer has also included some storage instructions and a statement that, for best results, the item should be used before the date shown. Two-thirds of the shoppers who said they had used date information for refrigerated dough products said the date represents the last day the item should be used. This was the single most frequent answer given for any product.

As far as influencing their use of an item, many shoppers said the date had no influence. Some said they would use the item promptly or within the date. They rarely said they would dispose of an item if they did not use it before the date shown.

All shoppers aware of open dating were also asked about advantages and disadvantages of the program and for suggested improvements. Product freshness was the advantage cited by about half the shoppers interviewed. All other possible advantages were mentioned infrequently. This emphasis on freshness as an advantage confirms the conclusion that open dating primarily assures customers they are buying fresh foods. Few shoppers saw any disadvantages in open dating, although some did mention possible store costs and resulting higher prices. Many shoppers were satisfied with the open dating program and had no improvements to suggest. Among those who recommended any improvement, eliminating the need for the code books was mentioned most often. Simpler codes, dates on more products, and more legible dates were also mentioned.

## Further Research on Food Product Dating

One question on open dating that was not answered in this case study was what economic impact readable dates would have on store operations. Some concern has been expressed that readable dates on products could lead to selective buying by consumers. Rejection of older but perfectly acceptable products could increase waste and affect operating costs. Delivery and withdrawal records for several items of varying degrees of perishability, both coded and open dated, were kept in the sample stores for 3 months. However, due to the lack of a base period before the open dating was introduced, the findings were not conclusive.

To try to get the necessary information on cost, ERS has recently completed data collection on an experimental open dating program conducted by another large retail food chain. This experiment involved 10 test stores. Pull dates were tested on several hundred items in 5 stores in one town and pack dates were used on the same items in 3 stores in a nearby town. Two

stores in another area have been concentrating on improving in-store handling practices. In all of these stores record keeping for open-dated items was initiated about a month before open dating was introduced. And the record keeping continued on a daily basis throughout the 8-week experiment. Data for 14 items, including fresh and processed meat, dairy, bakery and produce products, will be evaluated carefully to determine whether the introduction of open dating had any effect of the number of items that had to be reduced in price or thrown away. Store managers have recorded not only the number of items put on display each day, but also the number removed. In addition they have noted the reason the item was removed, how it was handled, and the costs involved.

Information from this study should make it possible to evaluate whether open dating does affect consumer purchasing and also whether it affects the retailers' cost. The combined results of the studies should provide definitive answers on whether required food product dating is helpful and feasible.

Table 15.--Shoppers' interpretations of the phrase, "freshness codes,"  
18 selected supermarkets, 3 income areas, Chicago, spring 1971.

Interpretation of date	Total			Total					
	Income area			Income area					
	: Low	: Middle	: Higher	: Low	: Middle	: Higher	:	:	:
	:	:	:	:	:	:	:	:	:
Number									Percent
Last day product can be sold by store.....:	84	29	26	29	20	19	19	20	
How fresh the product: is.....:	165	49	66	50	38	33	49	35	
How old the product: is.....:	76	28	23	25	18	19	17	17	
When the product was: delivered to the: store or put on: display.....:	117	36	39	42	27	24	29	29	
How long the product: will be fresh or: usable.....:	93	33	26	34	22	22	19	24	
Product is safe.....:	27	15	9	3	6	10	7	2	
Total interviews <sup>1/</sup>	429	150	135	144	--	--	--	--	

<sup>1/</sup> Will not add to total interviews because of multiple answers.

Table 16.--Shoppers' use of freshness codes, by products, selected supermarkets,  
3 income areas, Chicago, spring 1971.

Product	Total shoppers			Income area			Income area		
	who used			Low	Middle	Higher	Low	Middle	Higher
	freshness codes			:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:
	Number	Percent		Number			Percent		
Dairy products									
Milk.....	88	33		30	27	31	32	31	36
Other.....	79	29		25	31	23	26	35	26
Bakery products									
Bread.....	94	35		33	32	29	35	36	33
Other.....	21	8		5	9	7	5	10	8
Refrigerated dough products.....	79	29		33	19	27	35	22	31
Meat, poultry, fish:									
Fresh meat and poultry.....	32	12		11	11	10	12	12	12
Processed meat....	27	10		9	13	5	10	15	6
Fish, fresh and processed.....	5	2		4	1	0	4	1	0
Eggs.....	63	23		24	22	17	25	25	20
Produce.....	25	9		10	9	6	10	10	7
Canned vegetables...	10	4		6	3	1	6	3	1
Canned fruits and juices.....	11	4		7	3	1	7	3	1
Frozen foods.....	14	5		4	7	3	4	8	3
Cereals.....	7	3		1	3	3	1	3	3
Snacks.....	10	4		3	3	4	3	3	5
All others <sup>1/</sup> .....	15	6		5	5	5	5	6	6
Total interviews <sup>2/</sup>	270	--		95	88	87	--	--	--

<sup>1/</sup> Includes cookies, coffee, bottled juices, delicatessen items, and dry foods such as cake mixes.

<sup>2/</sup> Will not add to total interviews because of multiple answers.

## REGIONAL COSTS OF HARVESTING, STORING AND PACKING APPLES

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**ABSTRACT:** Harvesting, storing, and packing costs for fresh apples for the 1969/70 season were obtained in a survey of 232 firms in 5 major production areas. Harvesting costs per bushel, including picking and hauling the apples to the packing shed or storage, ranged from 29 cents in the Northwest to 44 cents in the Northeast. Regular atmosphere and controlled atmosphere storage charges were found to be lowest in California and the Lake States and highest in the Northwest, reflecting the supply and demand for storage services. Returns to growers were higher for controlled atmosphere stored apples than for regular atmosphere stored apples.

**KEY WORDS:** Apples, costs, harvesting, storing, packing, selling.

Fresh apple harvesting, storage, and packing costs and charges vary widely among 5 major production regions of the United States. Harvesting costs in the 1969/70 marketing year ranged from 28 cents per bushel in Washington State to 44 cents in the Northeast. Charges for storage ranged from 23 cents per bushel for regular cold storage in California to 75 cents per bushel for controlled atmosphere cold storage in the Wenatchee-Okanogan area of Washington. Packing costs, including selling charges, were \$1.85 for tray pack cartons in California north of San Francisco, compared with only 94 cents for bulk cartons in the Lake States and in California south of San Francisco. In general, packing costs are higher for tray pack cartons than for either bagged apples in master containers or for loose apples in bulk cartons. Selling charges were 26 cents in the Northeast, higher than in any other region. These findings were revealed in a recent national survey of grower-packers and packers of fresh apples covering the 1969/70 season.

### Survey Procedure

Commercial fresh apple production is reported in 34 States. For purposes of the study, 5 main production regions were defined, representing 24 States and 97 percent of the commercial fresh apples having value in 1969. The apple producing regions were grouped as follows: (1) Northeast (New York, New Jersey, and New England); (2) Lake States (Michigan, Ohio, Indiana, Illinois, and Wisconsin); (3) Appalachia (Pennsylvania, West Virginia, Delaware, Maryland, Virginia, and North Carolina); (4) California; and (5) Northwest (Washington, Oregon, Idaho, and Colorado).

For each region, lists of grower-packers and packers and their estimated annual volume were compiled from industry and trade sources. All firms handling 500,000 bushels or more in the Northwest and those handling 200,000 bushels or more in the other regions were contacted. Firms handling 100,000 to 500,000 bushels in the Northwest and those handling 100,000 to 200,000 bushels in the other regions were sampled at

rates varying from 25 to 100 percent, depending on the concentration of firms in each region.

Information on harvesting, storage, and packing costs and charges was obtained through personal interviews with managers of each sample firm. Data were obtained for the 1969/70 marketing year. A total of 232 firms provided information for the survey as follows: Northeast 33 firms, Appalachia 61 firms, Lake States 33 firms, Northwest 89 firms, and California 16 firms.

The study was concerned with the costs incurred in removing apples from the tree through loading the packed fruit in railcars or trucks for shipment to consuming centers. Operations include picking, hauling, storing, grading, sizing, placing fruit in containers, and loading for shipment. The exact sequence of operations will vary by time periods within the marketing year, by variety and production area, and by individual firms. For example, apples may: (1) not be stored but go directly to the packing shed; (2) be stored tree run directly after picking; (3) be stored after preliminary grading and sizing, and (4) be stored after being packed in shipping containers.

In the presentation of data on costs and charges, the Appalachia and California regions were each subdivided into 2 areas, and the Northwest region was subdivided into 3 areas. All data represent weighted averages. Harvesting costs and storage charges are weighted by the total volume of apples handled by each firm. Labor and overhead costs are weighted by the total volume of apples packed for fresh market. Container costs are weighted by the volume of fresh apples packed in each type of container. Selling charges are weighted by the total volume of packed fresh apples sold.

### Harvesting Costs

Harvesting (picking and hauling) costs averaged 29 cents per bushel in the Northwest compared with 44 cents in the Northeast (table 17). Picking costs, which included supervision and labor camp maintenance as well as wages of pickers, were highest in the Northeast and Lake States and lowest in the Northwest. There are

Table 17.--Apple harvesting costs and storage charges, 5 major production regions, 1969/70 season

Region	Harvesting			Storage charges	
	Picking	Hauling	Total	Regular atmosphere	Controlled atmosphere
	-----Dollars per bushel-----				
Northeast .....	0.36	0.08	0.44	0.33	0.64
Lake States .....	.37	.06	.43	.29	.57
Appalachia .....					
North 1/.....	.33	.07	.40	.30	.63
South 2/.....	.32	.10	.42	.35	---
All Appalachia .....	.33	.08	.41	.30	.63
California .....	.31	.05	.36	.23	.43
Northwest .....					
Wenatchee, Okanogan, Washington 3/.....	.24	.04	.28	.38	.75
Yakima, Wash. 3/.....	.23	.05	.28	.32	.65
Idaho, Oregon, Colorado .....	.23	.11	.34	.35	.60
All Northwest .....	.24	.05	.29	.35	.69

1/ Virginia (North of Roanoke), Maryland, Delaware, West Virginia, and Pennsylvania.

2/ Virginia (South of Roanoke), and North Carolina.

3/ And other nearby points.

several reasons for the differences, including cultural practices and type of labor used.

Cultural practices result in lower picking costs in the Northwest than in other regions. There are two major varieties of apple trees in the Northwest, Red and Golden Delicious, and their irrigated orchards have high yields resulting from high density plantings of small trees of uniform size. This provides opportunities for efficiencies in apple picking. Small trees are easier to harvest mainly because much of the crop can be harvested by workers standing on the ground.

The percentage of apples picked by local labor, based on survey firms, was 44 percent in the Northwest contrasted to 20 percent in the Northeast and 10 percent in the Lake States. Local labor normally does not require special housing or labor camps.

Hauling costs from the orchard to the packing shed or storage ranged from 4 cents per bushel in the Wenatchee-Okanogan, Washington area to 10 cents in South Appalachia and 11 cents in Idaho, Oregon, and

Colorado. As might be expected, hauling costs are a function of distance, and variations in this expense generally reflect the density of apple production in each area.

#### Storage Charges

The apple industry uses two types of cold storage predominantly—regular atmosphere and controlled atmosphere. Roughly two-thirds of the apples stored go into regular cold storage. The remainder are sealed in controlled atmosphere storage where the oxygen in the air is reduced and the carbon dioxide and nitrogen levels are increased to lower the rate of respiration of the stored fruit. Controlled atmosphere (CA) is especially effective in extending the storage season into the spring and summer months. After April 1, a majority of apples marketed move from controlled atmosphere storage.

Average regular atmosphere (RA) storage charges were 29 cents per bushel in the Lake States, 30 cents in Appalachia, 33 cents in the Northeast, and 35 cents in

the Northwest (table 17). Controlled atmosphere storage charges were generally 25-35 cents higher in most regions, averaging 57 cents in the Lake States, 64 cents in the Northeast, and 69 cents in the Northwest. The higher charges for CA storage reflect the additional fixed investment in buildings and equipment and higher operating costs for this type of facility. Storage charges for both RA and CA were low in California. Conversely, RA and CA storage charges were high in the Northwest.

Charges for storage space in all regions apparently reflect the supply and demand for this service. In California and the Lake States, storages are not necessarily limited to apples. Many other deciduous fruits are produced in these areas and at least for some facilities, apples are not the only product stored. As a result there is often plenty of space available for apples, and firms competing for this business will lower rates as an inducement.

In the Northwest, RA and CA facilities tend to specialize, relying nearly 100 percent on apples. In recent years apple production has increased markedly in the region. This has been coupled with the natural advantages Red Delicious apples have in CA storage over alternative varieties. As a result there has been a strong demand for both RA and CA storage space in the Northwest, particularly CA. This was especially true in 1969/70 when the Northwest crop was the largest on record. In addition the average storage season in the Northwest is longer than for other regions. For example, CA apples are marketed as late as the following September from Washington State.

#### Packing Costs and Selling Charges

In this study, packing costs were divided into the major categories of labor, containers, and overhead. Labor costs include: (1) those costs involved in receiving the fruit at the packing shed from the grove or from the storage warehouse; (2) costs of grading labor; (3) costs of packing labor, including piece workers; (4) costs of labor involved in container assembly; (5) costs of labor involved in shipping—stamping, labeling, stacking, and loading; and (6) costs of packing line supervisory labor. Container costs include costs of cartons, molded trays, bags, cells, overwraps, liners, labels and other items used in packaging fruit. Overhead costs include depreciation on buildings and equipment, utilities, repairs, maintenance, other operating costs, taxes, insurance, and management and office salaries.

Selling charges are intended to cover salesmen's salaries and commissions, costs of telephone and wire services used in connection with selling, and billing.

#### Labor Costs

Average regional labor costs per packed container ranged from 32 cents in the Lake States to 46 cents in the Northwest (table 18). Differences among areas were influenced by the percentage of fruit packed in trays

versus bags and/or bulk cartons (table 19).<sup>1</sup> For example, in California south of San Francisco average labor costs were 28 cents, and only 5 percent of the apples were packed in trays compared with 19 percent in bags and 76 percent bulk. On the other hand, in the Appalachian and Northwest regions and California north of San Francisco, labor costs were 44 cents or more and the percentage of apples packed in trays ranged from 39 to 79 percent.

Another factor influencing labor costs is the quality of tree run apples being utilized. In California north of San Francisco only 40 percent of the apples moving across the packing line were U.S. No. 1 or better. In all other production areas and regions, 60 percent or more of the fruit was U.S. No. 1 or better.

In the Appalachian area, bag cartons containing 12/4 lb. or 15/3 lb. poly bags are packed in addition to the more common 12/3 lb., 10/4 lb. and other similar type bag cartons. As a result, labor costs per carton are estimated to be 2-3 cents higher in this region than they would have been if only bag cartons of 12/3's and 10/4's, etc., had been packed.

In the Northwest labor costs are also influenced by the practice of some packers of individually wrapping each apple with paper in the top layer and on occasion all layers of the tray pack.

#### Container Costs

Costs of tray pack cartons plus filler materials, including trays, liners, wraps, etc., regionally ranged from 53 cents in the Lake States to 63 cents in the Northwest, and 65 cents in California (table 18). Regional and area differences in part may be attributed to differences in the weight and strength of box used and the amount of liners and wraps used. The Northwest region, for example, frequently uses a heavy shipping container due to the long distance to its markets.

The type of market being served will also influence packers' decisions as to the quality of container being used. For example, South Appalachia, serving predominantly the Southeastern and Southcentral States, had an average cost of 53 cents for tray packs compared with 60 cents for North Appalachia which sends a higher percentage of its crop to metropolitan areas along the East Coast and also may store the packed master container. Differences in container costs may also reflect regional pricing patterns by suppliers.

Average container costs for bag cartons, including the bags, and for bulk cartons generally followed similar patterns as for trays.

<sup>1</sup> Fresh apples generally are packed in fiberboard cartons for shipment to wholesale outlets. Three types of packs are predominantly used. These are: (1) Tray packs consisting of 4-5 layers of apples placed on molded trays in the fiberboard carton. The number of trays varies depending on the size of apples. (2) Bag cartons where the fiberboard carton serves as a master container commonly holding 10/4 lb., and 12/3 lb. poly bags. (3) Bulk cartons in which apples are jumble or loose packed in the fiberboard carton.

Table 18.--Apple packing and selling costs and charges, 5 major production regions, 1969/70 season

Region	Costs of packing and selling										Packing and selling charges				
	Containers			Sell-ing			Over-head			Tray	Bag	Bulk	Tray	Bag	Bulk
	Labor	Tray	Bag	Bulk	Aver-age	3/	head	packs	cartons	1/	2/	packs	cartons	1/	2/
Dollars per carton															
Northeast . . . . .	.35	.58	.46	.32	.49	.26	.15	.34	.22	.08	.25	.34	.23	.09	1.25
Lake States . . . . .	.32	.53	.46	.30	.48	.18	.14	.17	.10	.94	.12	.28	.14	NA	1.18
Appalachia . . . . .															
North 4/ . . . . .	.44	.60	.50	.36	.53	.18	.17	.39	.29	.15	.32	.43	.27	.14	1.33
South 5/ . . . . .	.47	.53	.50	.38	.51	.16	.36	.52	.49	.37	.50	NA	NA	NA	1.78
All Appalachia . . . . .	.44	.58	.50	.37	.53	.18	.20	.40	.32	.19	.35	.43	.29	1.13	1.34
California . . . . .															
North of S.F. . . . .	.57	.64	.47	NA	.56	.16	.48	.85	.68	NA	.77	NA	NA	NA	NA
South of S.F. . . . .	.28	NA	.48	.34	.40	.14	.18	NA	.08	.94	1.00	NA	NA	NA	NA
All California . . . . .	.40	.65	.48	.34	.47	.14	.31	.50	.33	.19	.32	NA	NA	NA	NA
Northwest															
Wenatchee-Okanogan . . . . .															
Washington 6/ . . . . .	.48	.61	.58	.36	.61	.15	.26	.50	.47	.25	.50	.65	.55	1.16	1.67
Yakima, Wash. 6/ . . . . .	.44	.62	.52	.35	.60	.13	.42	.61	.51	.34	.59	.74	.63	1.28	1.72
Idaho, Oregon, . . . . .															
Colorado . . . . .	.47	.72	.58	.39	.65	.15	.30	.64	.50	.31	.57	.67	.43	1.28	1.56
All Northwest . . . . .	.46	.63	.55	.38	.62	.15	.34	.58	.50	.33	.57	.70	.60	1.27	1.68

1/ Average of all bags packed 10/4's, 12/3's, etc. In particular in the Appalachian area this includes some 15/3's and 12/4's.

2/ Includes cell packs and overwraps but excludes other bulk containers and other miscellaneous containers.

3/ Selling charge.

4/ Virginia (North of Roanoke), Maryland, Delaware, West Virginia and Pennsylvania.

5/ Virginia (South of Roanoke) and North Carolina.

6/ And nearby points.

NA = Not Available.

Table 19.--Labor costs of packing fresh apples and type of containers used, by regions and areas, 1969/70

Region and area	Labor costs	Type of containers					Total		
		Trays	Bag	Bulk	Other				
		: cartons	: cartons	: cartons	:				
:									
:									
Dollars									
<u>per carton</u>									
-----Percent-----									
Northeast .....	.35	17	56	3	<u>1</u> /24	100			
Lake States .....	.32	14	68	7	<u>2</u> /11	100			
Appalachia .....									
North .....	.44	39	53	5	3	100			
South .....	.47	47	42	8	3	100			
All Appalachia .....	.44	40	51	6	3	100			
California .....									
North of S.F. ....	.57	55	20	25	<u>3</u> /	100			
South of S.F. ....	.28	5	19	76	<u>0</u>	100			
All California .....	.40	18	19	63	<u>3</u> /	100			
Northwest .....									
Wenatchee-Okanogan .....									
Washington .....	.48	79	8	4	<u>4</u> /9	100			
Yakima, Wash. ....	.44	71	13	6	<u>5</u> /10	100			
Idaho, Oregon,									
Colorado .....	.47	65	9	25	1	100			
All Northwest .....	.46	75	10	7	8	100			

1/ Includes 19 percent cell packs.

2/ Includes 9 percent overwraps.

3/ Less than 0.5 percent.

4/ Includes 6 percent cell packs.

5/ Includes 4 percent cell packs.

### Selling Charges

Charges for selling fresh apples were fairly comparable in all regions with the exception of substantially higher charges in the Northeast. The lowest charges were for California and the Northwest, averaging 14 to 15 cents per carton. Appalachia and the Lake States were 3-4 cents higher. Selling agencies in the Northwest in general were large firms that are able to obtain economies of size in their selling operations. Unit charges for selling were frequently quoted by West Coast firms while both unit charges and 5 to 6 percent commission rates were common in Appalachia and the Lake States. In the Northeast selling charges usually were 8 percent and unit charges were higher than elsewhere, accounting for the region's 26-cent average selling charge.

### Overhead

On the low side, overhead costs ranged from 14 cents in the Lake States to 18 cents in California south of San Francisco. Considerable difference was found between North and South Appalachia and the two California areas (table 18).

Firms in South Appalachia area are about the same as those in North Appalachia in terms of packing shed capacity, but the average firm packs only 54 percent as much fruit. In effect, Southern Appalachia firms have high overhead costs but are geared to packing their crop rapidly so as to hit the early fall market and obtain a premium price.

In California, average packing shed output per hour was 208 cartons in the area south of San Francisco and

127 cartons in the area north of San Francisco. Volume per firm was also much higher in the area south of San Francisco, resulting in economies of scale and hence lower overhead costs per unit of output.

Of special interest were the relatively high overhead costs in the Northwest. Average overhead costs were 34 cents and ranged from 26 cents in Wenatchee-Okanogan, Wash., to 42 cents in Yakima. Average packing shed output per hour and the average volume of apples packed per firm in the Northwest were almost double those of any other region. This normally would suggest lower rather than higher overhead costs per unit.

Several explanations of high overhead costs in the Northwest are possible, although no conclusions have been reached about the relative importance of each. First, there has been considerable construction of new facilities in the Northwest relative to other production areas. As a result of new investment being written off the books, depreciation costs may be high compared with older plants more common in other producing regions. Second, the degree of mechanization is high in the Northwest relative to other production areas. Considering the extent of tray packing in the region, average packing costs could be higher without these improvements. High overhead costs have resulted from capital being substituted for labor, although labor costs remain high due to the hand labor required in packing trays. Other factors that would raise overhead costs include the possibility of a high ratio of supervisory and management personnel to the volume of fruit being packed, the inclusion of waxing costs in the overhead figure, and the possibility of occasional old but inefficient plants being operated in the region.

#### Total Packing Costs

Total packing costs in all regions and areas were highest for tray packs, followed by bag cartons and bulk cartons.

Since total packing costs are the sum of labor, containers, selling, and overhead components, the totals for each area are influenced by all the factors previously mentioned. The average cost of all containers packed in each region ranged from \$1.12 in the Lake States to \$1.57 in the Northwest.

#### Custom Packing and Selling Charges

Custom charges represent rates for work performed by firms that pack and/or sell apples for a fee. In the

Northeast and Appalachia these charges were nearly identical to total costs, both for each type of container and for the average for all containers (table 18). In the area of South Appalachia, average total charges for all containers were 28 cents higher than total costs, but the volume of fruit custom packed was small.

In the Northwest, charges were higher than total costs with the exception of bulk cartons. The average premium for custom packing in the Northwest was 12 cents on tray packs, 10 cents on bag cartons, and 11 cents on the average for all containers. In the Lake States the premium for custom packing was 11 cents on trays, 4 cents on bag cartons, and 6 cents on the average for all containers.

Custom packers normally do not make a separate charge for overhead but rather build in a margin on labor and container charges to cover their overhead expenses. In the Northeast and Northwest the tendency was to build this margin into labor charges. In Appalachia and the Lake States both labor and container charges were used to cover overhead expenses for custom packers.

#### Grower Returns

An approximation of returns to growers on apples was made by deducting harvesting, storage, packing, and selling costs from f.o.b. shipping point prices during 3 selected weeks during the 1969/70 season (table 20). The data used involved New York MacIntosh and Michigan Jonathans packed in master containers holding 12 3-pound bags as well as Appalachian and Northwest Red Delicious packed in tray cartons. The results of these approximations suggest that: (1) returns to growers are higher on apples marketed before the regular atmosphere storage season begins than they are for apples marketed during the RA storage season; and (2) returns to growers are higher for controlled atmosphere stored apples than for RA stored apples. The data in table 4 serve to illustrate a comparison of returns for only 3 weeks of the 1969/70 marketing year. Observations on f.o.b. shipping point prices for other weeks might result in a different pattern of returns. However, the fact that controlled atmosphere storage capacity has been rapidly increasing in recent years is a good indicator the returns on CA fruit have been favorable to apple growers and packers.

Table 20.--Returns to apple growers by variety, three selected weeks, 1969/70 season

Variety, unit and origin	Week ended	F.o.b.			Costs			Return to growers 2/ 2/
		shipping point price	point price	1/	Harvesting	Storage	Packing and selling	
					:	:	:	
Dollars per carton								
Northeast:								
Western and central New York points, U.S. Fancy 2 1/4" and up, 12- 3 lb. film bags master container, <u>McIntosh</u>	Nov. 1, 1969 Jan. 31, 1970 April 4, 1970	2.88 2.73 3/3.30	0.44 .44 .44		0 .33 .64	1.22 1.22 1.22	1.66 1.99 2.30	1.22 .74 1.00
Lake States:								
Western Michigan points, Cartons, U.S. Fancy, 2 1/4" and up, 12- 3 lb. film bags, master container, <u>Jonathan</u>	Nov. 1, 1969 Jan. 31, 1970 April 4, 1970	2.50 2.50 3/3.25	.43 .43 .43		0 .29 .57	1.10 1.10 1.10	1.53 1.82 2.10	.97 .68 1.15
Appalachia:								
W. Va., Va., Md., Pa. Carton tray pack, combination U.S. Extra Fancy and U.S. Fancy, 125's and larger <u>Red Delicious</u>	Nov. 1, 1969 Jan. 31, 1970 April 4, 1970	3.62 3.55 3/4.72	.41 .41 .41		0 .30 .63	1.40 1.40 1.40	1.81 2.11 2.44	1.81 1.44 2.28
Northwest:								
Yakima Valley, Washington Washington State Grade, Carton tray pack, Extra Fancy, 138's and larger, mostly 125's and larger <u>Red Delicious</u>	Nov. 1, 1969 Jan. 31, 1970 April 4, 1970	3.68 3.72 3/4.88	.28 .28 .28		0 .32 .65	1.61 1.61 1.61	1.89 2.21 2.54	1.79 1.51 2.34

1/ Source: Weekly Summary of f.o.b. Prices, Market News Service, Fruit and Vegetable Division, Consumer and Marketing Service, U.S. Department of Agriculture.

2/ Derived by subtracting total costs from f.o.b. shipping point price. No allowances have been made for promotion assessments.  
3/ Controlled atmosphere.

Table 21.--Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, July-September 1971

Product 1/	Farm equivalent	Retail unit	Retail	Gross	Byproduct	Net	Farm-	Farm-
			cost	farm value	allowance	farm value	retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket .....			1,259.52	--	--	480.38	779.14	38
Meat products .....			373.91	--	--	199.07	174.84	53
Dairy products .....			226.19	--	--	106.48	119.71	47
Poultry and eggs .....		Average quantities purchased per urban wage-earner and clerical-worker household in 1960-61	88.46	--	--	45.93	42.53	52
Bakery and cereal products 3/	Farm produce equivalent to products bought per urban wage-earner and clerical-worker household in 1960-61	purchased per urban wage-earner and clerical-worker household in 1960-61	192.49	--	--	35.41	157.08	18
All ingredients .....			--	30.93	5.31	25.62	--	13
Grain .....			276.81	--	--	68.19	208.62	25
All fruits and vegetables .....			142.94	--	--	42.30	100.64	30
Fresh fruits .....			60.60	--	--	17.82	42.78	29
Fresh vegetables .....			82.34	--	--	24.48	57.86	30
Processed fruits and vegetables .....			133.87	--	--	25.89	107.98	19
Fats and oils .....			44.71	33.42	18.08	15.34	29.37	34
Miscellaneous products .....			56.95	--	--	9.96	46.99	17
			Cents	Cents	Cents	Cents	Cents	Percent
Beef, Choice grade .....	2.25 lb. Choice grade cattle	Pound	105.4	73.1	4.5	68.6	36.8	65
Lamb, Choice grade .....	2.47 lb. lamb	Pound	112.1	65.5	5.6	59.9	52.2	53
Pork .....	2.00 lb. hogs	Pound	71.3	36.5	2.8	33.7	37.6	47
Butter .....	Cream and whole milk	Pound	87.5	112.0	52.1	59.9	27.6	68
Cheese, American process .....	Milk for American cheese	1/2 pound	53.1	23.8	.8	23.0	30.1	43
Ice cream .....	Cream, milk, and sugar	1/2 gallon	87.3	--	--	28.0	59.3	32
Milk, evaporated .....	Milk for evaporating	1 1/2 -ounce can	20.2	9.5	.2	9.3	10.9	46
Milk, fresh								
Home delivered .....	4.39 lb. Class I milk	1/2 gallon	67.2	--	--	29.5	37.7	44
Sold in stores .....	4.39 lb. Class I milk	1/2 gallon	59.2	--	--	29.5	29.7	50
Chickens, frying, ready-to-cook .....	1.37 lb. broiler	Pound	42.3	--	--	20.3	22.0	48
Eggs, Grade A large .....	1.03 dozen	Dozen	51.5	--	--	29.4	22.1	57
Bread, white								
All ingredients .....	Wheat and other ingredients	Pound	25.2	--	--	3.5	21.7	14
Wheat .....	.877 lb. wheat	Pound	--	2.9	.3	2.6	--	10
Bread, whole or cracked wheat .....	.708 lb. wheat	Pound	35.1	--	--	3.5	31.6	10
Cookies, sandwich .....	.528 lb. wheat	Pound	55.1	--	--	5.3	49.8	10
Corn flakes .....	2.87 lb. yellow corn	12 ounces	33.1	4/6.4	4/3.6	4/2.8	30.3	8
Flour, white .....	6.8 lb. wheat	5 pounds	60.1	23.3	2.7	20.6	39.5	34
Apples .....	1.04 lb. apples	Pound	27.4	--	--	7.7	19.7	28
Grapefruit .....	1.03 grapefruit	Each	23.2	--	--	6.4	16.8	28
Lemons .....	1.04 lb. lemons	Pound	32.9	--	--	9.3	23.6	28
Oranges .....	1.03 doz. oranges	Dozen	100.6	--	--	24.6	76.0	24
Cabbage .....	1.08 lb. cabbage	Pound	12.4	--	--	3.5	8.9	28
Carrots .....	1.03 lb. carrots	Pound	23.9	--	--	8.4	15.5	35
Celery .....	1.08 lb. celery	Pound	19.7	--	--	5.7	14.0	29
Cucumbers .....	1.09 lb. cucumbers	Pound	22.4	--	--	7.1	15.3	32
Lettuce .....	1.88 lb. lettuce	Head	32.9	--	--	9.6	23.3	29
Onions .....	1.06 lb. onions	Pound	15.4	--	--	4.8	10.6	31
Peppers, green .....	1.09 lb. peppers	Pound	40.5	--	--	11.7	28.8	29
Potatoes .....	10.42 lb. potatoes	10 pounds	91.9	--	--	23.5	68.4	26
Tomatoes .....	1.18 lb. tomatoes	Pound	43.0	--	--	16.1	26.9	37
Peaches, canned .....	1.60 lb. Calif. cling peaches	No. 2 1/2 can	37.0	--	--	6.4	30.6	17
Pears, canned .....	1.85 lb. pears for canning	No. 2 1/2 can	53.2	--	--	9.8	43.4	18
Beets, canned .....	1.24 lb. beets for canning	No. 303 can	19.6	--	--	1.3	18.3	7
Corn, canned .....	2.495 lb. sweet corn	No. 303 can	25.0	--	--	3.0	22.0	12
Peas, canned .....	.69 lb. peas for canning	No. 303 can	26.5	--	--	3.8	22.7	14
Tomatoes, canned .....	1.84 lb. tomatoes for canning	No. 303 can	22.7	--	--	3.2	19.5	14
Orange juice, concentrate, frozen .....	3.47 lb. oranges	6-ounce can	24.5	--	--	8.0	16.5	33
French fried potatoes, frozen .....	1.38 lb. potatoes	9 ounces	16.4	--	--	2.6	13.8	16
Peas, frozen .....	.70 lb. peas for freezing	10 ounces	22.2	--	--	3.9	18.3	18
Beans, navy .....	1.00 lb. Mich. dry beans	Pound	23.0	--	--	12.5	10.5	54
Margarine .....	Soybeans, cottonseed, and milk	Pound	32.9	24.5	13.2	11.3	21.6	34
Peanut butter .....	1.33 lb. peanuts	12-ounce jar	49.5	--	--	17.1	32.4	35
Salad and cooking oil .....	Soybeans, cottonseed, and corn	24 oz. bottle	64.2	53.1	34.8	18.3	45.9	29
Vegetable shortening .....	Soybeans and cottonseed	3 pounds	97.5	87.0	47.4	39.6	57.9	41
Sugar .....	Sugar beets and cane	5 pounds	68.5	29.1	1.8	5/27.3	5/41.2	5/40
Spaghetti with sauce, canned .....	Wheat, tomatoes, cheese, sugar	15 1/2-ounce can	19.1	--	--	2.0	17.1	10

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--Choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal.

2/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

3/ For the bakery products group and the individual wheat products, gross farm value, byproducts allowance, net farm value, and farmer's share are based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program.

4/ Based on market price of corn received by farmers; no allowance made for price support payment received by farmers who comply with Federal Feed Grain Program.

5/ Net farm value adjusted for Government payments to producers was 31.1 cents, farm-retail spread adjusted for Government processor tax was 38.5 cents, farmer's share of retail cost based on adjusted farm value was 45 percent.

Table 22.--Farm food products: Retail cost and farm value, July-September 1971, April-June 1971, July-September 1970, and 1957-59 average

Product 1/	Retail unit	Retail cost						Net farm value 2/					
		July- September 1971	April- 1971	July- September 1970	1957-59 average	Percentage change:	July- Sept. 1971	July- September 1971	April- 1971	July- September 1970	1957-59 average	Percentage change:	July- Sept. 1971
		1/	1/	1/	from-	from-	1/	1/	1/	1/	1/	from-	1/
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket .....		1,259.52	1,243.95	1,232.96	982.65	1.3	2.2	480.38	3/476.32	3/482.45	387.87	0.9	-0.4
Meat products .....		373.91	366.96	378.75	285.05	1.9	-1.3	199.07	3/192.98	3/205.25	154.47	3.2	-3.0
Dairy products .....	Average quantities purchased	226.19	224.27	218.92	173.33	.9	3.3	106.48	3/106.90	3/104.54	77.85	-.4	1.9
Poultry and eggs .....		88.46	86.78	91.58	93.02	1.9	-3.4	45.93	44.71	3/ 49.43	56.28	2.7	-7.1
Bakery and cereal products 4/	All ingredients												
wage-earner and	wage-earner	192.49	191.95	185.34	148.40	.3	3.9	35.41	3/ 36.51	3/ 35.54	30.55	-3.0	-.4
Gra <i>f</i> .....	and	--	--	--	--	--	--	25.62	26.90	3/ 25.62	23.40	-4.8	0
All fruits and vegetables .....	Clerical-worker	276.81	273.55	262.59	202.96	1.2	5.4	68.19	3/ 71.76	3/ 65.93	50.05	-5.0	3.4
Fresh fruits and vegetables .....	household	142.94	142.43	135.33	91.15	.4	.6	42.30	3/ 46.27	3/ 41.39	28.70	-8.6	2.2
Fresh fruits .....	in	60.60	54.43	55.65	36.26	11.3	8.9	17.82	3/ 16.84	3/ 16.47	12.26	5.8	8.2
Fresh vegetables .....	1960-61	82.34	88.00	79.68	54.89	-6.4	3.3	24.48	3/ 29.43	24.92	16.44	-16.8	-1.8
Processed fruits and vegetables .....		133.87	131.12	127.26	111.81	2.1	5.2	25.89	25.49	3/ 24.54	21.35	1.6	5.5
Fats and oils .....		44.71	44.13	41.20	37.56	1.3	8.5	15.34	13.44	11.92	11.19	14.1	28.7
Miscellaneous products .....		56.95	56.31	54.58	42.33	1.1	4.3	9.96	10.02	3/ 9.84	7.48	-.6	1.2
	Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent	
Beef, Choice grade .....	Pound	105.4	104.8	99.9	74.4	.6	5.5	68.6	3/68.2	63.4	51.3	.6	8.2
Lamb, Choice grade .....	Pound	112.1	108.5	106.2	73.8	3.3	5.6	59.9	59.8	3/60.1	41.9	.2	-.3
Pork .....	Pound	71.3	68.8	79.0	59.8	3.6	-9.7	33.7	29.9	39.7	31.9	12.7	-15.1
Butter .....	Pound	87.5	87.6	86.9	73.2	-.1	.7	59.9	3/60.5	3/63.3	52.6	-1.0	-5.4
Cheese, American process .....	1/2 pound	53.1	52.7	50.5	32.3	.8	5.1	23.0	23.1	3/22.2	14.2	-.4	3.6
Ice cream .....	1/2 gallon	87.3	84.7	85.2	84.2	3.1	2.5	28.0	3/28.4	3/28.5	21.0	-1.4	-1.8
Milk, evaporated .....	1 1/2-ounce can	20.2	19.6	19.0	14.5	3.1	6.3	9.3	9.4	8.9	6.2	-1.1	4.5
Milk, fresh .....	Home delivered	67.2	67.0	65.4	50.8	.3	2.8	29.5	29.6	28.6	21.9	-.3	3.1
Sold in stores	1/2 gallon	59.2	59.0	57.4	46.6	.3	3.1	29.5	29.6	28.6	21.9	-.3	3.1
Chickens, frying, ready-to-cook .....	Pound	42.3	41.1	40.2	43.5	2.9	5.2	20.3	19.5	3/18.1	24.4	4.1	12.2
Eggs, Grade A large .....	Dozen	51.5	51.1	58.9	56.2	.8	-12.6	29.4	29.0	37.5	36.1	1.4	-21.6
Bread, white .....													
All ingredients .....	Pound	25.2	25.0	24.5	18.9	.8	2.9	3.5	3.6	3.4	3.0	-2.8	2.9
Wheat .....	Pound	--	--	--	--	--	--	2.6	2.7	2.6	2.4	-3.7	0
Bread, whole or cracked wheat .....	Pound	35.1	34.3	33.0	---	2.3	6.4	3.5	3/3.6	3/3.4	---	-2.8	2.9
Cookies, sandwich .....	Pound	55.1	54.8	53.0	---	.5	4.0	5.3	5.2	4.8	---	1.9	10.4
Corn flakes .....	12 ounces	33.1	34.3	32.0	24.5	-3.5	3.4	2.8	3.1	3.0	2.4	-9.7	-6.7
Flour, white .....	5 pounds	60.1	60.3	58.9	53.3	-.3	2.0	20.6	21.6	3/20.5	18.8	-4.6	.5
Apples .....	Pound	27.4	24.1	25.8	16.1	13.7	6.2	7.7	7.0	3/7.2	5.0	10.0	6.9
Grapefruit .....	Each	23.2	17.7	21.0	10.7	31.1	10.5	6.4	5.1	3/5.5	2.7	25.5	16.4
Lemons .....	Pound	32.9	32.9	30.6	18.4	0	7.5	9.3	10.4	3/9.6	4.2	-10.6	-3.1
Oranges .....	Dozen	100.6	90.5	89.5	66.0	11.2	12.4	24.6	24.4	3/23.4	23.2	.8	5.1
Cabbage .....	Pound	12.4	14.5	13.3	8.7	-14.5	-6.8	3.5	5.3	3.5	2.4	-34.0	0
Carrots .....	Pound	23.9	21.6	17.4	14.5	10.6	37.4	8.4	9.2	5.0	3.7	-8.7	68.0
Celery .....	Pound	19.7	18.4	18.3	15.3	7.1	7.7	5.7	5.3	5.7	4.4	7.5	0
Cucumbers .....	Pound	22.4	35.8	19.7	---	-37.4	13.7	7.1	18.2	6.3	---	61.0	12.7
Lettuce .....	Head	32.9	32.1	32.4	22.6	2.5	1.5	9.6	8.9	12.7	6.0	7.9	-24.4
Onions .....	Pound	15.4	14.1	16.5	10.1	9.2	-6.7	4.8	4.1	4.8	3.4	17.1	0
Peppers, green .....	Pound	40.5	78.4	36.3	---	-48.3	11.6	11.7	35.9	10.7	---	-67.4	9.3
Potatoes .....	10 pounds	91.9	89.1	98.4	58.3	3.1	-6.6	23.5	23.7	28.3	17.8	-.8	-17.0
Tomatoes .....	Pound	43.0	50.2	36.0	30.1	-14.3	19.4	16.1	19.5	12.2	10.6	-17.4	32.0
Peaches, canned .....	No. 2 1/2 can	37.0	36.7	35.7	34.3	.8	3.6	6.4	6.5	3/6.2	6.1	-1.5	3.2
Pears, canned .....	No. 2 1/2 can	53.2	52.9	49.8	---	.6	6.8	9.8	12.1	3/10.2	---	-19.0	-3.9
Beets, canned .....	No. 303 can	19.6	19.3	18.6	---	1.6	5.4	1.3	1.3	1.4	---	0	7.1
Corn, canned .....	No. 303 can	25.0	25.7	24.6	17.8	-2.7	1.6	3.0	2.9	2.4	3.4	3.4	3.4
Peas, canned .....	No. 303 can	26.5	26.1	25.0	21.0	1.5	6.0	3.8	3.8	3.7	3.1	0	2.7
Tomatoes, canned .....	No. 303 can	22.7	22.6	21.8	15.6	.4	4.1	3.2	3.1	3.2	2.3	3.2	0
Orange juice, concentrate, frozen .....	6-ounce can	24.5	22.5	22.3	23.4	8.9	9.9	8.0	6.9	7.3	8.2	15.9	9.6
French fried potatoes, frozen .....	9 ounces	16.4	16.3	16.4	---	.6	0	2.6	2.6	2.9	---	0	-10.3
Peas, frozen .....	10 ounces	22.2	22.1	21.2	19.9	.5	4.7	3.9	3.8	3.7	3.2	2.6	5.4
Beans, navy .....	Pound	23.0	21.5	19.1	16.3	7.0	20.4	12.5	12.9	6.7	6.9	-3.1	86.6
Margarine .....	Pound	32.9	32.6	30.1	27.4	.9	9.3	11.3	9.8	8.5	7.8	15.3	32.9
Peanut butter .....	12-ounce jar	49.5	49.1	47.9	41.4	.8	3.3	17.1	16.0	16.5	14.1	6.9	3.6
Salad and cooking oil .....	24-ounce bottle	64.2	62.7	58.2	---	2.4	10.3	18.3	16.2	13.8	---	13.0	32.6
Vegetable shortening .....	3 pounds	97.5	96.3	89.9	90.4	1.2	8.5	39.6	34.4	29.8	28.2	15.1	32.9
Sugar .....	5 pounds	68.5	67.9	65.7	54.5	.9	4.3	27.3	27.3	26.3	20.2	0	3.8
Spaghetti with sauce, canned .....	15 1/2-ounce can	19.1	19.0	18.6	---	.5	2.7	2.0	2.1	2.1	---	-4.8	-4.8

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal.

2/ Gross farm value adjusted to exclude imputed value of byproducts obtained in processing.

3/ Many retail cost figures have been revised for April-June 1971 and July-September 1970, figures in other columns revised as indicated.

4/ For the bakery products group and the individual wheat products, the net farm value is based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost equals the value of the domestic marketing certificate received by farmers complying fully with the Wheat Program.

Table 23.--Farm food products: Farm-retail spread and farmer's share of the retail cost, July-September 1971,  
April-June 1971, July-September 1970, and 1957-59 average

Product 1/	Retail unit	Farm-retail spread 2/						Farmer's share			
		July- September 1971	April- June 1971	July- September 1970	1957-59 average	Percentage change: July-September 1971 from July-September 1970		July- September 1971	April- June 1971	July- September 1970	1957-59 average
						Percent	Percent	Percent	Percent	Percent	Percent
						July- September 1971	July- September 1970				
Market basket .....		779.14	767.63	750.51	594.78	-1.5	3.8	38	38	39	39
Meat products .....		174.84	173.98	173.50	130.58	.5	.8	53	53	54	54
Dairy products .....	Average quantities purchased per urban wage-earner	119.71	117.37	114.38	95.48	2.0	4.7	47	48	48	45
Poultry and eggs .....		42.53	42.07	42.15	36.74	1.1	.9	52	3/ 52	54	61
Bakery and cereal products 4/	wage-earner and clerical-worker	157.08	155.44	149.80	117.85	1.1	4.9	18	19	19	21
All ingredients .....	All ingredients	---	---	---	---	---	---	13	14	14	16
Grain .....	Household	208.62	201.79	196.66	152.91	3.4	6.1	25	26	25	25
All fruits and vegetables .....	Household	100.64	96.16	93.94	62.45	4.7	7.1	30	3/ 32	3/ 31	31
Fresh fruits and vegetables .....	in	42.78	37.59	39.18	24.00	13.8	9.2	29	31	3/ 30	34
Fresh vegetables .....	1960-61	57.86	58.57	54.76	38.45	-1.2	5.7	30	33	31	30
Processed fruits and vegetables .....		107.98	105.63	102.72	90.46	2.2	5.1	19	19	19	19
Fats and oils .....		29.37	30.69	29.28	26.37	-4.3	.3	34	30	29	30
Miscellaneous products .....		46.99	46.29	44.74	38.45	1.5	5.0	17	18	18	18
	Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Beef, Choice grade .....	Pound	36.8	36.6	36.5	26.1	.5	.8	65	65	63	66
Lamb, Choice grade .....	Pound	52.2	48.7	46.1	31.9	7.2	13.2	53	3/ 55	3/ 57	57
Pork .....	Pound	37.6	38.9	39.3	28.0	-3.3	-4.3	47	43	50	53
Butter .....	Pound	27.6	27.1	23.6	20.6	1.8	16.9	68	69	3/ 73	72
Cheese, American process .....	1/2 pound	30.1	29.6	28.3	18.1	1.7	6.4	43	44	44	44
Ice cream .....	1/2 gallon	59.3	56.3	56.7	63.2	5.3	4.6	32	34	33	25
Milk, evaporated .....	1 1/2 -ounce can	10.9	10.2	10.1	8.3	6.9	7.9	46	48	47	43
Milk, fresh .....	Home delivered	37.7	37.4	36.8	28.9	.8	2.4	44	44	44	43
Sold in stores .....	1/2 gallon	29.7	29.4	28.8	24.7	1.0	3.1	50	50	50	47
Chickens, frying, ready-to-cook .....	Pound	22.0	21.6	22.1	19.1	1.9	-.5	48	47	3/ 45	56
Eggs, Grade A large .....	Dozen	22.1	22.1	21.4	20.1	0	3.3	57	57	3/ 64	64
Bread, white .....	Pound	21.7	21.4	21.1	15.9	1.4	2.8	14	14	14	16
All ingredients .....	Pound	---	---	---	---	---	---	10	11	11	13
Wheat .....	Pound	31.6	30.7	29.6	---	2.9	6.8	10	3/ 10	3/ 10	--
Bread, whole or cracked wheat .....	Pound	49.8	49.6	48.2	---	.4	3.3	10	9	9	--
Cookies, sandwich .....	Pound	30.3	31.2	29.0	22.1	-2.9	4.5	8	9	9	10
Corn flakes .....	12 ounces	39.5	38.7	38.4	34.5	2.1	2.9	34	36	35	35
Flour, white .....	5 pounds	39.5	38.7	38.4	34.5	2.1	2.9	34	36	35	35
Apples .....	Pound	19.7	17.1	18.6	11.1	15.2	5.9	28	29	28	31
Grapefruit .....	Each	16.8	12.6	15.5	8.0	33.3	8.4	28	29	3/ 26	25
Lemons .....	Pound	23.6	22.5	21.0	14.2	4.9	12.4	28	32	3/ 31	23
Oranges .....	Dozen	76.0	66.1	66.1	42.8	15.0	15.0	24	27	3/ 26	35
Cabbage .....	Pound	8.9	9.2	9.8	6.3	-3.3	-9.2	28	37	26	28
Carrots .....	Pound	15.5	12.4	12.4	10.8	25.0	25.0	35	43	29	26
Celery .....	Pound	14.0	13.1	12.6	10.9	6.9	11.1	29	29	31	29
Cucumbers .....	Pound	15.3	17.6	13.4	---	-13.1	14.2	32	3/ 51	31	--
Lettuce .....	Head	23.3	23.2	19.7	16.6	.4	18.3	29	28	39	27
Onions .....	Pound	10.6	10.0	11.7	6.7	6.0	-9.4	31	29	29	34
Peppers, green .....	Pound	28.8	42.5	25.6	---	-32.2	12.5	29	3/ 46	29	--
Potatoes .....	10 pounds	68.4	65.4	70.1	40.5	4.6	-2.4	26	3/ 27	29	31
Tomatoes .....	Pound	26.9	30.7	23.8	19.5	-12.4	13.0	37	39	34	35
Peaches, canned .....	No. 2 1/2 can	30.6	30.2	29.5	28.2	1.3	3.7	17	18	17	18
Pears, canned .....	No. 2 1/2 can	43.4	40.8	39.6	---	6.4	9.6	18	23	20	--
Beets, canned .....	No. 303 can	18.3	18.0	17.2	---	1.7	6.4	7	7	3/ 8	--
Corn, canned .....	No. 303 can	22.0	22.8	21.7	15.4	-3.5	1.4	12	3/ 11	12	13
Peas, canned .....	No. 303 can	22.7	22.3	21.3	17.9	1.8	6.6	14	15	15	15
Tomatoes, canned .....	No. 303 can	19.5	19.5	18.6	13.3	0	4.8	14	14	15	15
Orange juice, concentrate, frozen .....	6-ounce can	16.5	15.6	15.0	15.2	5.8	10.0	33	31	33	35
French fried potatoes, frozen .....	9 ounces	13.8	13.7	13.5	---	.7	2.2	16	16	3/ 18	--
Peas, frozen .....	10 ounces	18.3	18.3	17.5	16.7	0	4.6	18	17	17	16
Beans, navy .....	Pound	10.5	8.6	12.4	9.4	22.1	-15.3	54	60	35	42
Margarine .....	Pound	21.6	22.8	21.6	19.6	-5.3	0	34	30	28	28
Peanut butter .....	12-ounce jar	32.4	33.1	31.4	27.3	-2.1	3.2	35	33	34	34
Salad and cooking oil .....	24-ounce bottle	45.9	46.5	44.4	---	1.3	3.4	29	26	24	--
Vegetable shortening .....	3 pounds	57.9	61.9	60.1	62.2	-6.5	-3.7	41	36	33	31
Sugar .....	5 pounds	41.2	40.6	39.4	36.3	1.5	4.6	40	40	40	37
Spaghetti with sauce, canned .....	1 1/4-ounce can	17.1	16.9	16.5	---	1.2	3.6	10	11	11	--

1/ Product groups include more items than those listed in this table. For example, in addition to the products listed--choice beef, lamb, and pork (major products except lard)--the meat products group includes lower grades of beef, the minor edible pork products, and veal.

2/ The farm-retail spread is the difference between the retail cost and the net farm value shown in table on opposite page.

3/ Many farm-retail spread figures have been revised for April-June 1971 and July-September 1970, figures in other columns revised as indicated.

4/ For the bakery products group and the individual wheat products, the farmer's share is based on the market price of wheat received by farmers plus the cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program.

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MTS-183

NOVEMBER 1971

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